INFORMANT DISCREPANCIES IN YOUTH-WITNESSED VIOLENCE:

PREDICTORS AND OUTCOMES

by

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ABSTRACT

This dissertation investigated discrepancies in parent and youth report of youth-witnessed violence (YWV), including the relationship between parent history of victimization and discrepancy, as well as how discrepancies in reports of YWV predict outcomes for youth. The sample included a subset of participants from the Longitudinal Studies of Child Abuse and Neglect (LONGSCAN); specifically, 854 children and their primary, female caregivers. Data were collected from parents and children at the age of 4, 8, and 12. Multivariate regression analysis was utilized to examine parent history of victimization as a predictor of discrepant reports of YWV between youth and caregivers. Polynomial regression and response surface analyses were further conducted to understand the relationship between discrepancies in parent and youth reports of YWV as they relate to concurrent and distal internalizing, externalizing, and trauma symptoms, total problems, and youth delinquency.

Results indicated that youth reported witnessing significantly more incidents of violence than their parents reported. Additionally, there was support for a significant but small relationship between parents with victimization history and subsequent discrepancies in YWV. Specifically, parents with trauma histories reported greater YWV exposure relative to their children's reports. With respect to concurrent outcomes associated with discrepancies, results indicated that youth fared the worst (i.e., highest internalizing, externalizing, total problems, and trauma symptoms) when parent and youth agreed and reported high exposure to YWV. When it came to discrepancy, the

relationship was significant and negative, indicating that when parents and youth disagreed (i.e., greater discrepancy), parent symptom ratings decreased. When youth reported higher exposure relative to parents, youth reported more posttraumatic stress symptoms. For longitudinal outcomes, these relationships did not hold up and there were no statistically significant relationships between parent-youth discrepancy of YWV at age 8 and parent-reported youth outcomes at age 12. The study provided evidence that parent history of victimization may play a role in discrepancies and warrants further investigation. Additionally, the study suggested that discrepancy matters for understanding youth concurrent functioning and highlights the need to gather multisource data in research and clinical settings.

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CHAPTER ONE

INTRODUCTION

In the field of childhood trauma, clinicians place great importance on their initial assessment of children's history of trauma exposure and their symptoms of distress following exposure. These assessments are generally done by having caregivers complete questionnaires or checklists, and via clinical interview with the child and parent(s). But what happens when these accounts do not line up? In fact, it is more common than not that accounts from multiple informants are discrepant (Achenbach, McConaughy, & Howell, 1987; De Los Reyes & Kazdin, 2005). A large body of research has established a general lack of agreement between parents, teachers, children, clinicians, and laboratory observations, and these disagreements are termed *informant discrepancies* (De Los Reyes & Kazdin, 2004, 2005). The impact of these disagreements can be great, as clinicians utilize initial assessment information to determine which treatment modality is most appropriate. They also use assessment data as a comparison with past or future assessment data to measure treatment progress over time and make plans for termination.

Discrepancies between informants occur for countless constructs and numerous populations. For example, a lack of agreement between parents and children has been documented in the childhood trauma literature. Indeed, parents and children often disagree about the types of traumatic experiences the child has faced, and about the impact of these experiences (Stover, Hahn, Im, & Berkowitz, 2010). Disagreement about

these issues is concerning, as parental knowledge is a prerequisite for providing support and guidance for youth, as well as for seeking interventions. Although several factors have been associated with informant discrepancies, little is known about the actual consequences of these discrepancies for children exposed to traumatic events, such as witnessing violence. Additionally, few factors have emerged as significant predictors of parent-child discrepancies regarding trauma exposure and its psychological impact.

The current project seeks to better understand the nature of parent and child reports regarding youth-witnessed violence (YWV) and the impact of this exposure. Additionally, the project seeks to strengthen existing research on discrepancies between parent and youth report of YWV by using improved methodologies to identify predictors and risks associated with a lack of agreement between parents and children. The following literature review will begin with a brief discussion about the need for accurate methods for assessing childhood trauma exposure and will review research that seeks to understand the relative consistency, or lack thereof, between parents' and children's reports. Next, connections between the parent-child discrepancy literature and the trauma literature will be reviewed, with an overview of important factors that may contribute to parent and child inconsistency. Possible consequences associated with disagreement between parents and children will also be discussed. Finally, previous methods used to measure informant discrepancies, and the relative limitations of such methods, will be reviewed.

Review of Literature

Prevalence of Childhood Trauma

Research in the last two decades has established that children's exposure to a variety of traumatic events is common. Community samples suggest that more than two-thirds of children are exposed to a traumatic event by age 16 (American Psychological Association [APA], 2008). Research indicates that nearly one in four children have witnessed community violence within the last year, and approximately 5% of children have observed family violence (Finkelhor, Turner, Ormrod, & Hamby, 2010). Furthermore, nearly 40% of children have reported witnessing violence in their lifetimes (Zinzow et al., 2009). It should be noted that prevalence rates do not generalize to all groups, as ethnic minority youth living in urban areas are at the greatest risk for multiple victimizations (Finkelhor, Ormod, & Turner, 2007). Additionally, studies suggest that over 50% of urban children and adolescents report exposure to violence (McCart et al., 2007; Stein, Jaycox, Kataoka, Rhodes, & Vestal, 2003a).

Following trauma exposure, short-term distress is nearly universal, with most children returning to their previous functioning over time (APA, 2008). However, approximately 30% of children continue to exhibit symptoms a month after the event (Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995), and a sizable minority exhibit symptoms of posttraumatic stress (i.e., symptoms of hyperarousal, avoidance, re-experiencing, and negative cognitions and mood; American Psychiatric Association [APA], 2013). A significantly smaller minority (.5%) meet criteria for Posttraumatic Stress Disorder (PTSD; Copeland, Keeler, Angold, & Costello, 2007). Children exposed to violence can experience detrimental effects to their emotional and behavioral health

(Ozer, Richards, & Kliewer, 2004), with some investigations suggesting that children exposed to trauma have almost double the rate of psychiatric disorders compared to those who have not been exposed (Copeland et al., 2007). Additionally, children who are exposed to more than one victimization are significantly more likely to experience trauma symptoms (Finkelhor et al., 2007). Lastly, research indicates a cumulative effect of multiple adverse childhood experiences, including trauma exposure, on adult physical and mental health (e.g., greater risk for alcoholism, poor general health, suicide attempts, etc.; Felitti et al., 1998). Given the psychological sequelae associated with childhood trauma and violence exposure, particularly the lasting effects into adulthood, research on the assessment of exposure to potentially traumatic events and outcomes associated with exposure is essential.

The Informant Discrepancy Problem

In the field of child psychopathology, several researchers have noted the lack of a "gold standard" for assessment of children's functioning (e.g., Achenbach et al., 1987; De Los Reyes, 2011). The lack of an agreed-upon measure or method of assessing child psychopathology has meant that multiple informants are generally used to provide information about the child across varied contexts. Indeed, in the field of child assessment, best practice recommendations generally include a "multimethod assessment approach" (p. 6) that includes information obtained from multiple sources, including the child, parents, teachers, family members, other informants, and the child's records (Sattler & Hoge, 2006). It is generally understood that utilizing multiple measures and multiple reporters will yield greater validity in the overall assessment, as the multidimensional nature of psychological constructs requires multidimensional

assessment (De Los Reyes & Kazdin, 2006). Within research on child psychopathology and treatment interventions, researchers utilize multiple informants to gauge symptoms and outcomes, including reports from parents, children, independent evaluators, and clinicians (e.g., The Treatment for Adolescents with Depression Study Team [TADS], 2003, 2004). Similarly, research on childhood trauma also utilizes multiple informants to provide information about children's exposure to potentially traumatic events (PTEs; Ghosh Ippen, Harris, Van Horn, & Lieberman, 2011), as well as to assess symptoms associated with exposure (e.g., Lanktree et al., 2008). The practice of including multiple informants acknowledges that each source may offer unique and possibly different information.

Indeed, a large body of research that spans the last thirty years has concluded that multiple informants do in fact yield different information. In a seminal meta-analysis, Achenbach and colleagues (1987) reviewed 119 studies to investigate the concordance between cross-informant reports. Using Pearson *r*s to measure consistency in reports from parents, teachers, observers, clinicians, peers, and the child themselves, the review identified a large degree of association (Cohen, 1977) between similar pairs of informants (e.g., parents; $M = .60$), and a small degree of association between dissimilar pairs (e.g., teachers and parent; $M = .28$). There was the least consistency between the subjects' own reports and those from others (e.g., child and parent reports; $M = .22$). Although consistency between informants was better for externalizing symptoms (e.g., defiance, aggression) than for internalizing symptoms (e.g., depression, anxiety), the rate of agreement was still low.

Following the Achenbach and colleagues (1987) meta-analysis, the evidence for

poor consistency between multiple informants' reports on children's behavior continued. De Los Reyes and Kazdin (2004, 2005) have suggested the term *informant discrepancies* to describe the problem and have referred to it as "the most robust finding in child clinical research" (p. 483, De Los Reyes & Kazdin, 2005). Informant discrepancies are evident across varying methods of clinical assessment, diverse populations, and clinical samples (De Los Reyes & Kazdin, 2005). For example, in an investigation of a more contextual approach to child assessment with a diverse sample of children exhibiting behavior problems, parent and teacher agreement on symptom checklists of child aggression and withdrawal was modest (r=.23 and r=.30; Hartley, Zakriski, & Wright, 2011). It is notable that the discrepancy was large, given that agreement is more likely for behavioral problems (Achenbach et al., 1987). In an effort to improve consistency in reports, parents and teachers were given specific events and asked to rate the child's expected reactions (e.g., child's reaction to peer teasing). The agreement between raters continued to be modest ($r \leq .30$), and was not significantly different from rater agreement on symptom checklists. Even when the events were similar in nature (e.g., events occurring with authority figures in school settings), there was no improvement in cross-informant agreement (i.e., all rs were below .20). The study underscores the robust nature of information discrepancies when examining child symptomatology.

It should be noted that informant discrepancies have historically been treated as measurement error (De Los Reyes, 2011), with researchers considering the discrepancy an artifact of using multiple informants. Thus, researchers have often utilized a single informant when reporting outcomes (e.g., parent report; De Los Reyes & Kazdin, 2006, 2008), sometimes citing bias of an informant (e.g., Youngstrom, Izard, & Ackerman,

1999) and effectively ignoring the issue. Researchers have also tried to circumvent the problem by combining informants' reports to eliminate the discrepancy (De Los Reyes & Kazdin, 2006). Sometimes researchers analyze data from each informant separately, which often makes interpretations and generalization of results difficult (Kuo, Mohler, Raudenbush, & Earls, 2000; Rubio-Stipec, Fitzmaurice, Murphy, & Walker, 2003). However, there is evidence for meaningful interpretation of informant discrepancies that calls into question the history of ignoring or circumventing the problem.

When informants use parallel measures that evidence good reliability and validity, large discrepancies often remain, suggesting that the discrepancy may be more than just measurement error (De Los Reyes, 2011). Additionally, evidence for a number of negative events associated with informant discrepancies suggests these discrepancies may yield adverse consequences (e.g., Chi & Hinshaw, 2002). Furthermore, an investigation by Ferdinand, van der Ende, and Verhulst (2004) found that informant discrepancies yield more predictive utility than data from either informant alone. However, it should be noted that evidence for adverse consequences associated with informant discrepancies has often come from cross-sectional investigations that do not necessarily hold up with longitudinal analysis (i.e., discrepancies at time one have not necessarily predicted more risks at a later time; e.g., Reynolds, MacPherson, Matusiewicz, Schreiber, & Lejuz, 2011). The literature base requires longitudinal designs to truly understand the impact of informant discrepancies on youth outcomes.

The third reason to question discrepancies as merely reflecting measurement error is that those providing the reports are generally observing children in a variety of contexts (e.g., school, home); therefore, it is reasonable to expect variations in children's

behaviors between settings that would be reflected in informants' reports. To that end, researchers (De Los Reyes & Kazdin, 2005) have laid out a theoretical rationale for why different people might have differing views on the same child and same sets of behaviors. De Los Reyes and Kazdin (2005) explain that informants are likely to vary in systematic ways in terms of 1) the attributions they make for the behavior (e.g., when children self-report they are likely to attribute their own behavior to an external source, whereas parents are more likely to attribute the behavior to their child's internal disposition), 2) the biases they hold regarding the threshold level in which a behavior becomes problematic (e.g., teachers may have a different threshold for rating disruptive behaviors as a problem compared with parents), and 3) the contexts in which the behaviors occur (as previously discussed). Essentially, the combination of these systematic differences "should translate into informant discrepancies representing stable differences among informants in their perspectives of the behaviors upon which they are reporting…" (De Los Reyes, 2011, p. 3). To investigate whether the discrepancies represent stable differences, De Los Reyes and colleagues (2011) used latent profile analysis (LPA) with a multisite clinic sample (N=420), and found high levels of internal consistency across eight measures of discrepancies. In other words, there is evidence that caregivers and youth provide unique and different perspectives of youth problem behavior, resulting in reliable informant discrepancies.

Informant Discrepancies and Trauma

The literature on informant discrepancies has been extended to include agreement regarding youth's exposure to multiple potentially traumatic events (PTEs). While the bulk of previous literature has primarily focused on youth exposure to violence, two

recent articles investigated agreement among parents and children for youth exposure to a broad range of PTEs (Oransky, Hahn, & Stover, 2013; Stover et al., 2010). In the investigation by Stover and colleagues (2010), seventy-six youth ranging from ages 7 to 17 and their caregivers completed a questionnaire assessing history of exposure to multiple PTEs, including serious accidents, severe illnesses or injuries, death of someone close, separation from significant others, suicide of someone close, physical assaults or being threatened, being a victim of or witness to mugging, attacks by a dog or another animal, witnessing physical violence, having a family member arrested or in jail, and being a victim or witness of sexual activities. Cohen's kappa was used to measure agreement between children and parents, and overall agreement across all events ranged from .12 for separation from significant others to .58 for being a victim or witness of sexual activities. Despite statistically significant agreement for multiple variables (i.e., severe illness/injury, death of someone close, suicide of someone close, victim/witness mugging, animal attack, witnessing violence, family member arrested, victim/witness of sexual activities), agreement across all trauma types was moderate at best and very poor at worst.

The more recent investigation by Oransky and colleagues (2013) utilized a slightly larger sample of 114 caregiver-youth dyads ages 7 to 16, and compared youth and parent report across the same PTEs. Contrary to previous literature, youth did not report significantly greater lifetime exposure to the majority of PTEs than their parents reported, but similar to the Stover et al. (2010) study, overall agreement between parents and children was poor to moderate. Overall, both studies highlight the concerning nature of poor agreement between parents and children regarding a variety of dangerous and

psychologically harmful experiences reported by youth. It should be noted that Oransky et al. (2013) utilized a sample of children who were recruited from a child advocacy center after they disclosed a sexual abuse incident in the community. The sample utilized by Stover et al. (2010) was recruited after children presented to a trauma center after experiencing a PTE. Both samples may differ from broader community samples where the pretense for identification in the study is not so closely related to the area of investigation. Given that children in both studies had already made a disclosure, their parents may have been more sensitive to youth's PTE experiences overall. Future investigations of caregiver-youth agreement on PTE exposure should consider utilizing a broader sample of youth.

Multiple studies have investigated the correspondence between caregiver-reported and youth self-reported experiences of community violence and victimization (for a review, see Goodman, De Los Reyes, & Bradshaw, 2010). Although the literature has varied in terms of defining violence exposure (e.g., including threats of violence) and community violence (e.g., within the family versus outside of the family), it has been consistent in concluding there is poor agreement among child and parent reports of youth-witnessed violence (Goodman et al., 2010). With regard to youth victimization, Goodman and colleagues (2010) reported moderate agreement, with youth generally self-reporting greater exposure than parents reported.

A series of research studies utilizing a large, diverse sample of children at risk for maltreatment have investigated concordance between youth and caregiver reports of youth-witnessed violence (Lewis et al., 2010, 2012, 2013). Lewis and colleagues (2010) found that youth self-reported significantly more witnessed violence in terms of both

frequency and in having ever witnessed a violent event when compared to caregiver report (Lewis et al., 2010). In a follow-up investigation, Lewis and colleagues (2012) noted that 59% of parents and youth provided consistent reports (which combines groups who endorsed and did not endorse YWV), 34% of youth only reported exposure, and 7% of parents only reported YWV. For parents who reported youth-witnessed violence, only 29% indicated a need for mental health services for the youth and only 17% indicated that youth received services. When there was concordance between youth and parent report regarding youth-witnessed violence, caregivers were more likely to indicate need for services but were not more likely to actually seek services. The investigations by Lewis and colleagues (2010, 2012) point to one of the significant concerns related to parent-child discrepancies; namely, that lack of parental awareness may prohibit children experiencing distress from receiving services following exposure to a potentially traumatic incident.

Aside from poor agreement regarding youths' trauma history, research has also indicated poor agreement among parents and children regarding youths' behavior problems and trauma symptoms after exposure. Following children's hospitalization for injuries sustained in a pedestrian, bicycle, or motor vehicle accident, Kassam-Adams, García-España, Miller, and Winston (2006), assessed 219 children and parents for symptoms of Acute Stress Disorder (ASD), a diagnosis that would encompass symptoms of traumatic stress within one month of exposure to an extreme traumatic stressor (American Psychiatric Association, 2000). Kassam-Adams and colleagues (2006) found poor agreement between parent and child ratings of children's ASD severity, with parent ratings most often lower than child self-report ratings. Not surprisingly, parents and

children also disagreed with respect to the diagnosis of ASD. It should be noted that parents were more likely to rate their child as meeting criteria for a full diagnosis of ASD when the child's self-report also indicated a possible diagnosis, although agreement was still low (κ = 0.22).

With respect to youth exposure to community violence, Lewis et al. (2010) found that although youth self-reported more exposure to violence, caregivers reported more internalizing and externalizing symptoms compared to youths' self-report. Youth-identified violence was associated with internalizing symptoms, although the association between violence exposure and internalizing symptoms was greatest when caregivers were the informants. Investigations of exposure to a broad range of PTEs have also identified a discrepancy in parent and child reports regarding the impact of these events. Stover and colleagues (2010) identified poor agreement (r = .21) regarding youth and parent report for the impact of prior traumatic events on youth at the time of the most recent incident. With regard to trauma symptoms specifically, there was high agreement for reexperiencing symptoms (r = .85), but poor agreement for hyperarousal (r = .04) and avoidance (r = .12) symptoms between caregiver and youth reports. Similarly, Oransky and colleagues (2013) found that while youth did not report significantly higher exposure to PTEs than their parents, they did report significantly higher rates of posttraumatic stress symptoms and mood symptoms compared to caregiver ratings. In summary, it is not surprising that in addition to the gap in parent and child reports of children's trauma histories, there is also disagreement among informants regarding youths' functioning following these events.

Predictors of Informant Discrepancies

The research on characteristics associated with informant discrepancies has been criticized for too often focusing on a single factor to explain the gap (De Los Reyes et al., 2011). Among these characteristics, parent factors such as the presence of psychological distress have been investigated as potential predictors of informant discrepancies. Early research investigated a *depression-distortion hypothesis* (for a review, see Richters, 1992), which suggests that depressed caregivers are likely to overreport problem behaviors in their children. In this vein, it is assumed that depressed parents are more likely to view events negatively, resulting in inflated reports of child behavior problems. Indeed, researchers have noted that anxious or depressed mothers are more likely to report child behavior problems than their nonanxious and nondepressed counterparts (Najman et al., 2000). These investigations call into question the validity of caregivers' reports on their child's functioning and support earlier conceptualizations of informant discrepancies as reflecting bias in reporting.

However, alternate views of parental mental health factors and informant discrepancies have been suggested (for a review, see Ordway, 2011). It may be that parent mental health factors predispose their children to have higher rates of behavior problems; thus, parents' increased reporting of behavior problems may be accurate. Alternatively, parent mental health symptoms may contribute to parenting behaviors that promote greater behavior problems in their children – again suggesting that higher symptom reports may be accurate. Researchers have compared these varying models using structural equation modeling (SEM), and found that the depression-distortion hypothesis offered the best fit for a sample of German preschool children (Müller,

Achtergarde, & Furniss, 2011). In other words, there is evidence that parent psychopathology results in a bias in parent report of their child's symptoms. However, the problem with having no gold standard in assessing child psychopathology is that it precludes prioritizing one informant's ratings over another.

Parenting styles and relationship variables have also been investigated as predictors of informant discrepancies. In an examination of 100 children aged 10-12, Treutler and Epkins (2003) found evidence that parent-child relationship variables (i.e., parental acceptance, intensity of conflict/discussions, time spent with children, and number of topics discussed) were significantly related to discrepancies in parent-child reports of children's internalizing and externalizing problems. Others have found evidence that mothers low in sensitivity and responsivity perceive their children differently than others do (Kemppinen et al., 2007), thus increasing the likelihood of informant discrepancies. Perhaps informant discrepancies are a reflection of a broader construct related to the parent-child relationship, *attunement.* Attunement is the "performance of behaviors that express quality of feeling of a shared affect state without imitating the exact behavioral expression of the inner state" (Stern, Hofer, Haft, & Dore, 1985, p. 142). Parental attunement requires accurately interpreting their child's emotional and behavioral expressions. Indeed, some researchers have conceptualized informant discrepancies as indicative of poor parental attunement (e.g., Ehrlich, Cassidy, & Dykas, 2011; Oransky et al., 2013).

Within the child trauma literature, researchers have also considered factors that predict informant discrepancy and agreement. Lewis and colleagues (2013) examined correlates associated with informant agreement for youth-witnessed violence. The

predictors included youth characteristics (gender, race/ethnicity, youth history of maltreatment, and youth delinquency), caregiver characteristics (depression, income), relationship variables (parental monitoring, youth-parent relationship quality), and study site. The only significant factor that predicted exposure to youth-witnessed violence was youth participation in delinquent activities; however, this did not distinguish between groups where only youth reported violence (discrepancy) and groups where both parent and youth reported violence (agreement). In other words, youth participation in delinquency predicted violence exposure, regardless of parental knowledge. No other predictors were associated with parent-youth agreement, which Lewis et al. (2013) suggests may reflect low variability among other predictors.

The study by Lewis and colleagues (2013) is at odds with previous investigations identifying potential predictors of discrepancy. Prior study has indicated that relationship variables may play a role in report discrepancies (Hungerford, Ogle, & Clements, 2010). Specifically, children who reported observing intimate partner violence (IPV) when their parent did not report exposure (approximately 12% of the sample) endorsed having less positive family relationships than all other groups. The investigation by Zimmerman and Pogarsky (2011) supported the relationship between informant discrepancies and relationship variables. They found that parents primarily underestimated youth exposure to violence, which was related to negative outcomes longitudinally. However, this relationship was mediated by family support using Baron and Kenny (1986) criteria for full mediation. This offers another piece of evidence that parent-child relationship variables may be underlying the informant discrepancy problem.

An investigation by Zimmerman (2014) identified several covariates associated

with discrepancy for YWV. Regarding absolute discrepancy (total difference between parent and youth report, independent of direction), parents were more likely to disagree if certain demographic factors were present (i.e., youth was male, Hispanic or African American, older, or a third-generation immigrant), certain youth characteristics were present (i.e., youth had lower level of self-control and higher exposure to peer violence), and when the youth was part of a lower-SES household. When Zimmerman (2014) considered directional discrepancy, parents were more likely to underreport YWV when youth were male, older, second-generation immigrant, had lower parental supervision and higher neighborhood violence, and had less access to youth services. The Zimmerman (2014) investigation is in line with a study by Goodman (2013), which found that girls were more likely to be in a discrepant reporting group for youth victimization experiences.

One underinvestigated area in the YWV literature is the impact of parent mental health symptoms on discrepant reporting. In research of predictors for discrepancy of children's broader trauma history, parental trauma symptoms have been considered. In the study by Kassam-Adams and colleagues (2006), researchers found that parents with more acute stress disorder (ASD) symptoms following their child's injury rated their children as more symptomatic than parents with fewer symptoms. In fact, parental ASD symptom severity accounted for 42% of the variance in parent ratings of their child's ASD symptom severity, compared with just 4% of the variance accounted for by child's self-reported ASD symptom severity. Consistent with the Kassam-Adams and colleagues (2006) investigation, Oransky and colleagues (2013) found that parents' own symptoms of PTSD were significantly related to their ratings of youths' PTSD symptoms,

depressive symptoms, and functional impairment. Taken together, the research seems to indicate that parental distress following their child's trauma exposure is a contributing factor to discrepant reporting between parent and child ratings of children's symptoms following the trauma. It should be noted that despite the association between caregivers' symptoms and their ratings of their child's symptoms, Oransky and colleagues (2013) did not find support for caregivers' PTSD symptoms as a predictor of the discrepancy between parent and youth endorsement of youth exposure to PTEs.

The literature to date has exclusively focused on parent trauma symptoms in relation to their child's trauma exposure, and no investigation to date has considered the role of parents' own trauma history on informant discrepancies. There are several lines of research that suggest that parent trauma history may be an important factor in understanding informant discrepancies. First, there is evidence that parent history of trauma exposure may be related to children's level of trauma exposure and subsequent adjustment following exposure (Thakar, Coffino, & Lieberman, 2013). Perhaps parents' own distress related to their trauma history is triggered by their child's trauma exposure, thus impacting parenting behaviors and psychological response to their child's exposure. Indeed, research with mothers and their infants suggests that maternal maltreatment history was associated with less maternal sensitivity during a two-hour observation period (Pereira et al., 2012). The relationship was moderated by parenting stress, which would likely increase following children's trauma exposure. In sum, parent trauma history may impact a parent's ability to accurately read and report on his or her children's functioning after trauma exposure, particularly if parents are experiencing their own symptoms of traumatic stress.

Parental susceptibility to trauma symptoms following his or her child's own trauma exposure is supported by research identifying a prior diagnosis of PTSD as a significant risk factor for future development of PTSD (Breslau, Peterson, & Schultz, 2008). The presence of PTSD in caregivers of trauma-exposed children has already been linked to informant discrepancies (Kassam-Adams et al., 2006); thus, it is not a stretch to hypothesize a link between parent trauma history and informant discrepancies. Additionally, the finding from Oransky and colleagues (2013) that parents with trauma symptoms are likely to report greater trauma symptoms in their own children suggests that parents with their own trauma history may be inclined to report greater psychopathology in their children. The link between parent trauma exposure and informant discrepancy has not been investigated in prior research. The relationship warrants exploration in future study.

Consequences of Informant Discrepancies

In making the case for the meaningful nature of informant discrepancies, as opposed to viewing them as errors in measurement, previous researchers have pointed out the deleterious consequences associated with informant discrepancies (e.g., De Los Reyes, 2011). For example, Chi and Hinshaw (2002) found evidence that discrepancies in parent, child, and teacher reports of children's attention deficit/hyperactivity disorder (ADHD) symptoms, behavior problems, and discipline styles predicted problems in parent-child interactions. Further, these discrepancies were related to problematic interactions "above and beyond the contributions of the child's observed behaviors and her [i.e., mother's] own levels of depression symptoms" (p. 397). Additionally, a longitudinal investigation with a large sample of Dutch youth (Ferdinand et al., 2004)

found evidence that informant discrepancies regarding youth psychopathology predict several adverse outcomes for adolescents, including greater substance use, interaction with the justice system, school expulsion, unwanted pregnancy, self-harm, referral to mental health services, need for professional help, and reports of having an emotional or behavioral problem. Moreover, the Ferdinand and colleagues (2004) investigation indicated that in some instances, multiple informants and discrepancies between informants provide an additive effect for prediction above and beyond that provided by one informant alone.

Within the trauma literature, the relationship between discrepancies and negative outcomes has been less conclusive. Previous investigations of youth-witnessed community violence have identified a relationship between informant discrepancies and youths' psychological distress, PTSD, lower self-esteem, and increased violence perpetration (Ceballo, Dahl, Aretakis, & Ramirez, 2001; Howard, Cross, Li, & Huang, 1999). However, in the Lewis and colleagues (2012) investigation of discrepancies between parent and youth reports of YWV, concordance between caregivers and children was not associated with greater youth trauma symptoms or service utilization. Lewis and colleagues added that youth report of violence predicted trauma symptoms, regardless of parental knowledge. Perhaps the nature of the sample in the Lewis and colleagues (2012) study, which included youth with maltreatment histories, is related to the discrepant finding. Nevertheless, it is important to consider that although agreement was not associated with service utilization, overall approximately 41% of youth reported witnessing one or more events, compared with just 15% of parents. While all families were low in service utilization, it is hard to imagine caregivers seeking services for their

children when they are unaware of violence exposure.

A series of investigations has considered the impact of informant discrepancies for YWV on longitudinal outcomes (Zimmerman & Pogarsky, 2011; Zimmerman & Farrell, 2013). Using a sample of children from the Project on Human Development in Chicago Neighborhoods (*N*=1,517), Zimmerman and Pogarsky (2011) found that most parents (66%) underestimated their children's exposure to violence. When looking at outcomes associated with age 12 discrepant reporting, Zimmerman and Pogarsky (2011) report that in instances when parents highly underestimated children's violence exposure, youth were 26% more likely to have internalizing symptoms, 37% more likely to have externalizing symptoms, and 87% more likely to have legal offenses at age 15. There was no identified relationship between parent overestimation and outcomes. Future investigations confirmed the findings using the same sample, but explored gender differences (Zimmerman & Farrell, 2013) using hierarchical linear modeling (HLM) to account for nesting within neighborhoods. Even when controlling for several variables (i.e., age, gender, race/ethnicity, family structure, family support, parental control/supervision, years at current address, SES, number of siblings, and child violence exposure), Zimmerman and Farrell (2013) found that high parent underestimation of YWV was one of the strongest predictors of youth-reported externalizing, internalizing, and offending problems.

More in line with the Zimmerman and Pogarsky investigation (2011), Oransky and colleagues (2013) identified an association between parent-child discrepancies regarding youths' trauma histories and higher levels of youth PTSD symptoms, depressive symptoms, and functional impairment following youths' exposure. A recent

study by Goodman (2013) utilized latent class analysis (LCA) to identify classes of agreement and discrepancy for youth victimization histories. Goodman (2013) found that discrepant reporting was associated with deleterious outcomes, but that concurrent and longitudinal consequences varied by direction of reporting. For concurrent adjustment measures (i.e., internalizing and externalizing symptoms at age 12), in the class where youth reported more victimization experiences than their parents, youth were more likely to report adjustment problems. However, in the longitudinal analysis (i.e., internalizing and externalizing symptoms 2.5 years later), youth reported more depression and anxiety problems when they were in the class where parents reported more victimization experiences than youth reported. It should be noted that the longitudinal finding is very much at odds with previous conceptualizations that parent underreporting is particularly problematic (Goodman et al., 2010). However, overall the literature is largely consistent in suggesting that discrepancies in parent-child reports in either direction are associated with poorer youth functioning for a variety of traumatic events.

In addition to further clarifying the relationship between the direction of reporting discrepancies and concurrent versus longitudinal outcomes, further examination regarding the impact of informant discrepancies on children with trauma histories is needed, given the strong role that parent-child relationships play in mitigating consequences of trauma exposure (Kliewer et al., 2004). As previously discussed, many have suggested that informant discrepancies may signal a rupture in the parent-child relationship (Goodman et al., 2010), which may detrimentally impact prognosis over time. Further, some have suggested that when parents are unaware of the extent of their youth's violence exposure, the ability to coach youth through coping with exposure-

related distress may be compromised (Goodman et al., 2010). On the other hand, when parents are reporting more YWV than children, it may signal that youth are using coping strategies such as denial or disengagement, which have been associated with maladjustment (Goodman et al., 2010). To that end, further research on the directional influence of discrepancies on youth outcomes is needed. Within the treatment literature for trauma-exposed youth, there is widespread emphasis on the importance of parental awareness, knowledge, and support in mitigating child trauma symptoms (e.g., Trauma-Focused Cognitive-Behavioral Therapy [TF-CBT]; Cohen, Mannarino, & Deblinger, 2006). Further, most evidence-based treatments for maltreated children include strengthening the parent-child relationship as a treatment objective (National Child Traumatic Stress Network [NCTSN], 2003). Research on long-term consequences associated with informant discrepancies may further the case for interventions that inform caregivers about the extent of their child's trauma exposure and functioning following exposure, thus improving interventions for trauma-exposed children.

Measuring Informant Discrepancies

Researchers investigating the relative agreement between two or more informants have utilized an array of interrelated constructs and metrics. When the focus of the investigation is the difference between two informants' reports, the term *informant discrepancy* is utilized (e.g., De Los Reyes & Kazdin, 2004, 2005). The body of literature looking at discrepancy has been critically reviewed, with particular concern regarding the methodology used to measure discrepancies. Researchers have most frequently used raw difference scores, standardized difference scores, and residual difference scores for calculating informant discrepancies (for a review, see De Los Reyes & Kazdin, 2004). To

address concern regarding the inconsistent use of these methodologies, De Los Reyes and Kazdin (2004) suggested that researchers utilize standardized difference scores, citing the measure as the most "statistically discernable from the informants' ratings from which it was created" (p. 334). The appeal of difference scores is that they provide information regarding which informant is reporting relatively fewer or greater levels of the variable (Goodman et al., 2010). However, in a more recent paper, Laird and De Los Reyes (2013) critique use of difference scores as a valid measure of informant discrepancies. They highlight the psychometric (e.g., unreliability) and interpretive challenges (e.g., difficulty separating a difference score from the measures used to create it) inherent in difference scores. They strongly recommend that future investigations of informant discrepancies utilize polynomial regression analyses and the resulting interaction terms in lieu of standardized difference scores.

Constructs closely related to informant discrepancies are also the focus of much research, including investigations of informant agreement, concordance, and correspondence. When researchers investigate informant correspondence or agreement as a metric, it reflects how much two informants agree on one domain (Goodman et al., 2010). As a construct, informant agreement refers to the shared variance between two reports, and generally a metric such as the Pearson r correlation or a kappa coefficient is utilized (Cohen 1960; Saal, Downey, & Lahey, 1980). A drawback of using an agreement metric is that because it utilizes sample statistics, information regarding individual differences between informants and the level or severity of the concern is not available (Goodman et al., 2010). A common strategy utilized by investigations of agreement includes creation of categorical dimensions within the sample to identify different

patterns of agreement for comparison. For instance, in an investigation of mothers' and children's agreement regarding youths' exposure to intimate partner violence (IPV; Hungerford et al., 2010), four groups were created. One group consisted of concordant reports, with both mother and child denying exposure; another group consisted of concordant reports, with both mother and child endorsing exposure; and the two remaining groups represented discordant reports where either the mother but not the child endorsed exposure, or the child but not the mother endorsed exposure. Researchers then utilized group comparison analyses (e.g., chi-square, multivariate analyses, etc.) to identify characteristics (e.g., age, gender) associated with each group.

The mechanism for creating agreement and discrepancy groups also warrants discussion of methodological concerns. In the Lewis and colleagues investigations (2010, 2012, 2013), informant discrepancy groups for youth-witnessed violence were created by dichotomizing items such that witnessing any event at any frequency was coded as 1 and not witnessing the event was coded as 0. The four groups were then created by collapsing all six items into one concordance indicator. A group was labeled "both report" if both youth and parent endorsed at least one event at any frequency; "neither report" if both the parent and youth denied exposure for all items; "parent only" if the parent endorsed exposure to one event at any frequency but the youth denied exposure for all items; and "youth only" if the youth endorsed exposure to one event at any frequency but the parent denied all exposure for all items. This classification scheme decreases the amount of variance for each item and across items that can be compared between reporters. Further, no pattern of reporting can be explored across items to see if one informant is consistently rating youth exposure higher or lower than the other informant.

Even when investigators avoid simple dichotomizing schemes, they sometimes create arbitrary cut points to differentiate among reporting groups. For example, Zimmerman and Pogarsky (2011) created five dummy variables to reflect patterns of reporting for youth and parents. If parents and children had an overall difference score of 0, indicating there was no difference between parent and youth endorsement of youths' exposure to ten different violent events, they were labeled the "agreement" group. When parents and youth disagreed on one but not more than three items, they were placed in the "low underestimation" or "low overestimation" groups. For youth and parents who disagreed on more than three items, they were placed in the "high underestimation" or "high overestimation" groups. The concern is that these groups are not created based on existing theory or statistical analysis; thus, it is not meaningful to compare parents who endorse three items their children do not endorse versus parents who endorse four items their children do not endorse. Overall, our understanding of parent-youth agreement on YWV and the implications of disagreement are limited by methodological errors. Approaches that consider which informant reports relatively higher or lower levels of YWV, patterns of reporting across items, heterogeneity within the population of reporters, and longitudinal outcomes are needed.

Purpose of the Current Study

The purpose of the current investigation was to expand on the existing literature for informant discrepancies utilizing data from the Longitudinal Studies of Child Abuse and Neglect (LONGSCAN; Runyan et al., 2014), a de-identified dataset including data from children and caregivers participating in a 20-year longitudinal study of the antecedents and consequences of child maltreatment. Previous research by Lewis and

colleagues (2010, 2012, 2013) utilized the LONGSCAN data set to identify discrepancies in youth and caregiver reports of youth-witnessed violence; however, the aim of the current study was to expand on this research in several key ways.

First, the current study extends Lewis and colleagues' work by exploring a previously unexamined predictor of informant discrepancy. Specifically, this investigation explored whether parent history of victimization predicts greater parent-youth discrepancies in experiences of YWV. The second aim of this study was to determine whether discrepancies in parent and youth reports of YWV are predictive of concurrent functioning, as well as more distal outcomes. By examining outcomes longitudinally, it will shed light on the potential consequences of discrepancies. Finally, this study extended previous research on YWV by using a more comprehensive and accurate statistical approach to determine whether informant discrepancies predict youth psychopathology (Laird & De Los Reyes, 2013). Polynomial regression analyses have been recommended by researchers (Edwards, 1995; Laird & De Los Reyes, 2013; Rhoades Shanock, Baran, Gentry, Pattison, & Heggestad, 2010) as an alternative to traditional difference score methods in discrepancy research.

Research Questions and Study Hypotheses

Research question 1. Does parent victimization history predict discrepancy between youth self-report of YWV and parent report of YWV?

Given that previous research links parental trauma symptoms to informant discrepancies (Kassam-Adams et al., 2006), it is hypothesized that parents with victimization histories will vary more greatly in their reporting of YWV when compared with youth self-report of YWV. However, given that this hypothesis is largely

exploratory, directional hypotheses are limited. In other words, it is not clear if a parent victimization history will yield patterns of greater parent reporting of YWV relative to youth report, or vice versa. Previous research has suggested that parent mental health factors and parent PTSD symptoms may predict overreporting of child symptoms (Najman et al., 2000; Oransky et al., 2013), though it is not clear if this relationship will map on to parental report of YWV.

Research question 2. Are greater discrepancies between parent and youth report of YWV associated with poorer concurrent functioning for youth?

Previous cross-sectional research has identified greater internalizing symptoms in youth as being associated with parent-child discrepancy for YWV (Ceballo et al., 2001); thus, it is expected that an interaction between parent and youth report of YWV will be associated with concurrent internalizing and externalizing symptoms in youth. With regards to the pattern of reporting associated with symptoms (i.e., parents reporting greater YWV incidents versus youth reporting greater YWV incidents), previous research has been inconclusive. Goodman (2013) identified greater youth-reported maladjustment when youth reported greater victimization than parents (i.e., discrepancy was associated with concurrent internalizing and externalizing symptoms). However, in the analysis by Lewis and colleagues (2012) utilizing the LONGSCAN sample, trauma symptoms were higher for those in the agreement group (i.e., both parent and youth reporting YWV) and the youth-only group (i.e., only youth reported YWV). Thus, although it is expected that the interaction between parent and youth report will be associated with poorer outcomes, it is not clear which pattern of discrepancy will be most associated with youth internalizing and externalizing symptoms.

Research question 3. Are greater discrepancies between parent and youth report of YWV associated with poorer longitudinal youth outcomes?

Longitudinal research in the general youth psychopathology literature has offered evidence that informant discrepancies predict poor outcomes across a range of measures after four years (Ferdinand et al., 2004); thus, it is expected that discrepancies will predict poorer outcomes after four years. Directionally, previous research has conceptualized parental underreporting of YWV (i.e., parents reporting fewer incidents of YWV than youth report) as particularly predictive of maladjustment (Goodman et al., 2010) and longitudinal outcomes of parent underestimation of YWV have predicted significantly higher internalizing and externalizing symptoms in youth (Zimmerman & Pogarsky, 2011). In direct contrast, an investigation by Goodman (2013) found that when parents reported greater victimization relative to youth, it was associated with poorer youth-reported outcomes longitudinally. These discrepant findings preclude a directional hypothesis in the proposed study.

CHAPTER TWO

METHODS

Longitudinal Studies of Child Abuse and Neglect (LONGSCAN)[1]

Data for the current investigation were drawn from LONGSCAN, a consortium of research studies initiated in 1990 through the University of North Carolina, which is the coordinating center, and five satellite sites in Chicago (Midwest site denoted as MW), Baltimore (Eastern site denoted as EA), San Diego (Southwestern site denoted as SW), Seattle (Northwestern site denoted as NW), and multiple locations in North Carolina (Southern site denoted as SO). Each site has conducted separate and unique research investigations on the etiology and impact of child maltreatment, though the use of common assessment measures and study procedures allows data to be pooled for larger analyses. The goal of LONGSCAN is to follow participants, which include caregiver-child dyads, until the children become adults. Participants were first identified when children were age 4, and comprehensive assessments of parents, children, and teachers are scheduled to occur when children are ages 4, 6, 8, 12, 14, 16, and 18. Additionally, maltreatment data from Child Protective Services (CPS) are collected at least every two years. Lastly, yearly telephone interviews track service utilization and life events. Data have been collected and archived through the age 18 collection period, which has been made available via the National Data Archive on Child Abuse and Neglect (NDCAN) for members of the research community (Runyan et al., 2014).

Participants

Participants from the LONGSCAN baseline sample included 1,354 child-caregiver dyads. The attrition rate from baseline through age 12 is approximately 28%, though attrition varies by site and between interviews. A participant is not considered permanently withdrawn unless the child dies or the caregiver requests permanent removal from the study. A subset of the participants from the original sample was used for the current investigation. Participants from the southwestern site (N = 330) were not included in analysis, as the sample was comprised of children who were who were confirmed for maltreatment and living outside of their home with a relative or foster family. The samples collected at each of the five sites vary according to level of risk for, or actual, maltreatment histories. Participants from the Midwest and Northwest sites were selected for participation following the 1990 onset of LONGSCAN, and the other three sites brought existing samples into the study. Site information and participation selection criteria are as follows (NDACAN, 2011):

- The site in the East is primarily urban in nature. Baseline participants include 282 children who were selected from three pediatric clinics serving low-income inner city children. Participants met at-risk criteria in one of two ways: failure to thrive in the first two years of life (N = 103) or parent HIV infection or drug use (N = 68). There is also a comparison group of dyads with no risk factors beyond low income status (N = 111).
- The Midwest site is primarily urban and includes 245 children at baseline. Two-thirds of participants were selected from referral to CPS, and the remaining third consists of neighborhood controls.

- The Northwest site is primarily urban in nature. Baseline participants include 254 children selected following a referral to CPS for suspected child maltreatment. Approximately 60% of referrals were later substantiated.
- The site in the South includes rural, urban, and suburban communities and includes 243 children drawn from a population of children considered high-risk by state public health tracking efforts. Children with a report history were matched to children without a report history at a 2:1 ratio.

A subset of participants from four sites was used in the present study. Participants included 854 children ages (0-6) and their primary caregivers. This sample includes the 854 caregivers who completed the parent victimization measure during one of the first four data collection points (25 participants were removed due to having a male caregiver as primary caregiver, 15 participants were removed due to having foster mothers as primary caregiver, and 3 were removed for having "Other" as the designated caregiver). Of the remaining dyads, 103 participants were removed from analysis due to a change in caregiver between collection points. An additional 168 were lost to attrition by age 8 interviews and 141 more by age 12 interviews. The total attrition rate in this subset was approximately 22.4% by age 8 and 41.1% by age 12. Brief child participant demographics are provided for baseline, age 8, and age 12 in Table 1.

Caregivers in the study were female and primarily biological mothers (94.5%). Youth with foster parents were dropped from the investigation due to not having victimization history for those caregivers and due to the possibility that foster parents may not be aware of youth's history of exposure to violence. The remaining caregivers were grandmothers (4.3%), adoptive mothers (.5%), another female relative (.5%), and

stepmothers (.1%). Most of the female caregivers in the sample were single and never married (52.7%), though nearly one third endorsed being married (29.3%). Most caregivers worked full time (38.8%) or part time (11.3%), and 31.7% did not work for various reasons (searching for employment, other family responsibilities, retired, disability, etc.). The number of caregivers who endorsed living with a spouse or partner was nearly evenly split (48.6% endorsed). The mean family income was between $15,000-$19,999 per year.

Procedures

Children and their primary caregivers were interviewed separately at ages 4, 6, 8, and 12. The interviews at ages 4, 6, and 8 were interviewer-administered and at age 8, LONGSCAN utilized computer-assisted face-to-face interviews. From ages 12 onward, LONGSCAN used the Audio-Computer Assisted Self-Interview (A-CASI) system. Annual contact interviews were conducted by phone at ages 7, 9, 10, and 11.

To maintain tracking and retention, several methods were implemented to assure the least possible amount of attrition each year. All sites gathered contact information for the family annually, and obtained information from "three additional people who would 'always know where the subjects are'" (p. 3; NDACAN, 2011). Sites also utilized strategies such as sending birthday and holiday cards, as well as small thank-you gifts when participants returned updated address cards. If participants moved to a new location, they were interviewed by a new LONGSCAN site and were retained in their original sample, or they received annual telephone interviews and face-to-face follow ups if they moved to an area far away from a LONGSCAN site (NDACAN, 2011).

Each site utilized common protocols, in addition to site-specific areas of

investigation (e.g., attachment, father involvement, neglect, etc.), and data were stored, managed, and analyzed through the coordinating center (Runyan, et al., 1998). To ensure quality of the data, the coordinating center utilized double data entry verification, assessment of interobserver reliability, and site visits. A coordinator from each site was responsible for the recruitment, data collection, and data entry at each site, with quarterly reports provided to indicate data collection status and attrition problems. The Human Subjects Committee at the coordinating center advised an executive committee overseeing the project, and all project sites had approval for their procedure through their local Institutional Review Boards (IRB). Protocols for protecting human subjects were developed and include referrals for those in need of services, informed consent procedures, data collection procedures, ensuring child well-being, and maintaining confidentiality. Because mandated reporting laws for suspected child maltreatment vary, site protocols vary in accordance with state laws (Runyan, et al., 1998).

Measures

Predictors

Demographics. Caregiver demographic information was collected via interview using the A-CASI system when children were age 12, which gathers information on the caregiver's educational background, current employment status, occupation of responding caregiver and partners living in the home, total family income (i.e., number ranges given), source of income, number of dependents, age, race, marital status, and religious affiliation. Child demographic information was collected at baseline by asking the caregiver to provide information about the child, including the child's age, sex, race, first language, and birth order. Both demographic collection measures were developed by

LONGSCAN to gather data thought to be important for describing the sample and as covariates in analyses.

Caregiver's trauma history. To assess a caregiver's own history of childhood loss, separation, physical and sexual abuse, and history of physical and sexual assault in adulthood, the Caregiver's History of Loss and Victimization (Hunter & Everson, 1991) was administered. Items are grouped into the following categories: Loss and Separation, Child and Adolescent Physical Maltreatment, Childhood Sexual Abuse, Adolescent Sexual Abuse, Adult Physical Assault, and Adult Sexual Assault. For each item, the respondent is asked to indicate whether the incident occurred, and follow-up questions may be triggered with endorsement of an item. The measure was administered at baseline (i.e., during age 4 interviews). It should be noted that the measure was not administered at the Southwest site, as the caregivers were foster mothers and victimization history was not related to any LONGSCAN hypotheses; therefore, the Southwest site is not included in the present study. The measure has previously demonstrated construct validity (Hunter, Voorhorst, Runyan, & Everson, 1994). For the proposed study, a summed total of eleven victimization items were used as a predictor of discrepancy in parent and youth report of YWV. For the current sample, the coefficient alpha for total abuse history for caregiver was .825, which suggests a high level of internal consistency between these items.

Discrepancy Variables

Youth-witnessed violence- child report. Youth self-report of witnessed violence was assessed using the History of Witnessed Violence measure (HWVA; LONGSCAN, 1998). The measure was developed by LONGSCAN and was influenced by an established measure of YWV (i.e., Richters & Martinez, 1990) that evidenced good

test-retest reliability (r = .81) and evidence for construct validity (correlations with self-reported fear or distress were positive and significant). The LONGSCAN measure consists of twenty-six items ranging in severity from witnessing an arrest to witnessing someone get killed, which trigger follow-up questions if items are endorsed. Follow-up items include whether an event was ever witnessed, and how often it was witnessed in the last year. Response options were 0 (*never),* 1 (*1 time*), 2 (*2-3 times*), and 3 (*4 or more times*). For the current analysis, only nine items that match the parent report measure were utilized, which were collapsed into five items. A summed total of events endorsed within the last year were considered, which is consistent with the parent report measure for YWV. Interviews at age 8 utilized the Richters and Martinez (1990) measure and were used for analysis. The alpha coefficient in the present sample for the youth measure of YWV was .528. Although this is below the recommended .70 threshold recommended for internal consistency estimates for research purposes (Nunnally, 1978), this measure was significantly and positively correlated with relevant outcome variables such as concurrent problems on the Child Behavior Checklist (r = .138, p < .01) and traumatic stress symptoms on the Trauma Symptom Checklist (r = .307, p < .01), indicating adequate criterion validity.

Youth-witnessed violence - parent report. Parent report of youth-witnessed violence was assessed via completion of six items added to the Child's Life Event Scale (LONGSCAN, 1992), a project adaptation of the Life Event Record (Coddington, 1972). The Life Event Record has items assessing important changes in the household, such as birth of a child and serious illnesses or injuries for household members. Items that assessed violence exposure were later added, and range in severity from witnessing

someone get slapped, kicked, hit with something, or beaten up, to seeing someone get killed. Only items consistent with those in the youth self-report of witnessed violence were utilized to examine discrepancy between parent and youth. There are only minor word variations between the parent and youth versions, and the parent version included one item not included in the youth report form ("heard long, loud arguments between family members"). In an investigation by Lewis and colleagues (2012) where items were dichotomized for comparison (any frequency of endorsement was coded "1" and no endorsement was coded '0'), interrater reliability between pairs of parents, and between parents and youth, was .67 and .45, respectively. The investigation by Lewis and colleagues (2010) also suggested that the dichotomized variables yielded good criterion validity despite modest interrater agreement, as they were significantly predictive of internalizing and externalizing behaviors in youth. No further information regarding reliability or validity was available. It should be noted that the current investigation did not utilize a dichotomized method for examining discrepancy, and instead utilized all matched items from the youth report measure and parent report measure to determine discrepancies. Two questions were combined, yielding a five-question measure with an internal consistency estimate of .436 in the current sample. Again, this is below the recommended threshold for research; however, this measure demonstrated adequate criterion validity, as it was significantly and positively related to internalizing and externalizing symptoms on the Child Behavior Checklist, as well as traumatic stress symptoms on the TSC.

Outcome Variables

Parent report of child's symptoms. The Child Behavior Checklist (CBCL; Achenbach, 1991) is a caregiver-completed checklist that assesses children's emotional and behavioral functioning and yields four broadband factors (i.e., Social Competence, Behavior Problems Total, Internalizing, and Externalizing) and nine narrowband factors (i.e., Withdrawn, Somatic Complaints, Anxious/Depressed, Social Problems, Thought Problems, Attention Problems, Delinquent Behavior, Aggressive Behavior, Sex Problems). The problem checklist includes 118 items that ask caregivers to indicate the extent to which each item describes youth in the last six months. Responses are on a 3-point scale, and include "not true" (0), "somewhat or sometimes true" (1), and "very or often true" (2). A child's total problems score can range from 0 to 200, and *T* scores are used to interpret results. For the total problems, internalizing, and externalizing factor scales, *T* scores between 60 and 63 are within the borderline clinical range and scores above 63 are within the clinical range. For the syndrome scales, the borderline clinical range is defined as a *T* score of 67 to 70, with the clinical range being defined as *T* scores greater than or equal to 70. The manual reports that this measure has good psychometric characteristics (Achenbach, 1991), including good internal consistency, test-retest reliability, and validity. Cronbach's alpha for internal consistency reliability coefficients ranged from .46 on the activities subscale to .93 on the externalizing subscale for boys aged 4-11 (N = 582), and from .54 on the activities subscale to .93 on the externalizing subscale for girls aged 4-11 (N = 619). Among the eight syndrome scales, Cronbach's alpha values ranged from .62 to .92 for boys aged 4-11 and from .66 to .92 for girls aged 4-11. Additionally, items have successfully discriminated between referred and

nonreferred samples, and have shown moderate to strong correlations with similar scales. The current analysis used raw scores from the internalizing, externalizing, and total problems broadband scales as indicators of youth's functioning both concurrently (age 8) and longitudinally (age 12). In this sample, the coefficient estimate for internal consistency was estimated at α = .86 for concurrent internalizing symptoms, α = .904 for concurrent externalizing symptoms, α = .946 for concurrent total problems, α = .863 for longitudinal internalizing symptoms, α = .919 for longitudinal externalizing symptoms, and α = .955 for longitudinal total problems.

Youth report of symptoms. To assess children's ratings of symptoms connected to youth-witnessed violence, the Trauma Symptom Checklist for Children (TSCC; Briere, 1989) was included. The 54-item measure is completed by children and written at a level appropriate for ages 8-16 years of age. It consists of two validity scales, six clinical scales (Anxiety, Depression, Posttraumatic Stress, Dissociation, Anger, and Sexual Concerns), and 8 critical items. Children rate their level of agreement with how frequently a statement pertains to him/her on a four point scale, ranging from 0 (never) to 3 (almost all the time). For the purposes of this study, eight items assessing sexual concerns were removed from the measure due to IRB concerns that they may be distressing to children. Raw scale scores are calculated by summing all item responses within a particular scale, with high scores reflecting greater symptoms. The TSCC yielded good psychometric properties, including high internal consistency reliability with alpha ranging from .82 for the depression scale to .89 for the anger scale. Scores on the TSCC correlate with similar measures, such as the CBCL, and have been shown to be higher in individuals with histories of abuse (Lanktree & Briere, 1990, 1995). The current analysis utilized raw

scores from the posttraumatic stress scales as an indicator of youths' functioning both concurrently (age 8) and longitudinally (age 12). Internal consistency estimates were robust for the measure in the current sample (concurrent traumatic stress scale α = .805; longitudinal traumatic stress scale α = .842).

Engagement in delinquent activities - self-report. To measure impact of YWV discrepancy on youths' engagement in delinquent activities, the Adolescent Delinquency Survey (ADS; Black, Laliberte, & Santelli, 1999) was utilized. The ADS is a 10-item measure adapted from the computerized health assessment for adolescents (Black et al., 1999) that asks youth to report on participation in delinquent behaviors such as fighting, gang participation, and weapon use. Responses vary from dichotomous yes/no responses to follow-up items indicating how long ago engagement occurred and number of times child has engaged in the behavior (e.g., engaging in physical fight 1 time, 2-5 times, 6-12 times, or more than 12 times). A total score utilizing all items produced an alpha of .65 (Knight, Smith, Martin, Lewis, and LONGSCAN Investigators, 2010). It is not recommended that subscales be created utilizing items, as factor analysis has yielded poor alphas (Knight et al., 2010). In the current investigation, youth completed the measure at age 12 only, so it was utilized as an indicator of longitudinal functioning only. Internal consistency for the measure in the current sample was estimated at α = .597, though it was significantly and positively correlated with the externalizing symptoms measured by the CBCL.

Analytic Procedures

Prior to analyses to test for the main hypotheses, analysis for outliers, missing data, and normality was assessed. Descriptive statistics including means and standard

deviations for variables of interest were calculated, in addition to providing information regarding percent of youth versus percent of parents endorsing YWV items. All analyses were completed using SPSS version 17.0.

To address research question one regarding parent victimization history as a predictor of parent and youth discrepancy for YWV, multivariate analysis procedures were utilized. Borrowing from research in industrial and organizational psychology, multivariate procedures have been described as a more appropriate approach for studying congruence as a dependent variable (see Edwards, 1995). Researchers investigating discrepancies as they relate to youth psychopathology have suggested adopting these methods (Laird & Reyes, 2013). The benefit of using these methods is that both parent and youth reports of YWV are retained separately and tested jointly, which allows for estimating the effects of parent victimization history on parent and youth report, as well as the multivariate association between parent victimization and YWV reports as a set (Ostroff, Atwater, & Feinberg, 2004). Although directional hypotheses were not made regarding parent victimization history, the benefit of utilizing multivariate procedures includes being able to determine the direction of rating discrepancies (i.e., parent ratings higher than youth or youth ratings higher than parent).

In addressing research questions two and three, polynomial regression was utilized to determine the association between discrepancy or congruence in parent and youth report of YWV and outcomes, both concurrent and distal. Researchers (Laird & Reyes, 2013) have recommended the use of polynomial regression equations in lieu of traditional difference score methods to address discrepancy-based questions. Polynomial regression includes quadratic terms because the interaction between youth and parent

report may reflect the quadratic effect of child or parent reports if the quadratic effects are not modeled (Laird & Reyes, 2013). Essentially, the method includes testing whether the association between youth report of YWV and outcomes (i.e., internalizing and externalizing symptoms at age 8 and at age 12) are moderated by parent report of YWV (and whether the association between parent report of YWV and outcomes is moderated by youth report). Post-hoc probing with response surface mapping (Laird & Reyes, 2013; Rhoades Shanock, et al., 2010) was utilized to determine whether poor outcomes for youth at ages 8 and 12 (i.e., greater symptomatology) occur when informants agree at all levels (e.g., fewer or greater incidents of YWV), or whether the effect of agreement and disagreement varies by informant levels (e.g., symptomatology is higher when either parent or youth reports high level of YWV).

Nine polynomial regression analyses (for each of the concurrent and distal outcome variables) were conducted with response surface methods. Prior to running the analysis, it is recommended (Rhoades Shanock et al., 2010) that the base rate of discrepancies be calculated. Standardized difference scores were calculated for the YWV measures (parent report and youth report). Consistent with methods proposed by Fleenor and colleagues (1996), any participant with one predictor variable (i.e., parent rating on YWV) at least one half of a standard deviation below or above the other predictor variable (i.e., youth rating on YWV) was deemed to have a discrepancy. This method yields percentages of agreement and disagreement to determine if proceeding with analyses focused on discrepancy is warranted.

Prior to running polynomial regressions, the YWV measures were centered around 1.5 (the midpoint of the 3-point scale used by YWV measures for parent and

youth report). This step was recommended by Edwards (1995) and Rhoades Shanock and colleagues (2010) to aid in interpretation and reduce issues of multicollinearity. To complete the polynomial regressions, three new variables were created: a) the square of the YWV youth report measure, b) the cross-product of the centered YWV parent and youth measures, and c) the square of the centered YWV parent report measure. Next, the polynomial regression is run by regressing the outcome variable of interest (i.e., concurrent and distal youth outcomes) on the centered predictor variables (parent and youth report of YWV), the product of centered predictors, the centered YWV youth report predictor squared, and the centered YWV parent report predictor into the regression equation. The R^2 is then examined for significant difference from zero rather than examining regression coefficients. If it is significant, results of the polynomial regression are evaluated with regard to four surface test values. A polynomial regression equation takes the form of: $Z=b_0 + b_1X + b_2Y + b_3X^2 + b_4XY + b_5Y^2 + e$

In the current analysis, Z represents the dependent variables in research questions two and three (concurrent and distal outcome measure of interest), X is the first predictor (i.e., youth report of YWV), Y is the second predictor (i.e., parent report of YWV), b_0 is the intercept, b_1 through b_5 represent the estimated coefficients, and e is the error (Edwards, 2002). When the regression is significant, four surface values, a_1, a_2, a_3, and a_4, are evaluated and plotted using an Excel spreadsheet created by Rhoades Shanock and colleagues (2010). The value a_1 represents the slope of the line of perfect agreement (YWV youth report = YWV parent report) and is given by $(b_1 + b_2)$, where b_1 is the beta coefficient for YWV youth report and b_2 is the beta coefficient for YWV parent report. The value a_2 is the curvature of along the line of perfect agreement and is represented by

(b_3 + b_4 + b_5), where b_3 is the beta coefficient for the square of YWV youth report, b_4 is the beta coefficient for the cross product of youth report and parent report of YWV, and b_5 is the beta coefficient for the square of YWV parent report. The value a_3 is the slope of the line of incongruence, indicating the direction of discrepancy) and is assessed by *(b_1 - b_2).* The curvature of the line of incongruence, which indicates the degree of discrepancy, is denoted by a_4 and is assessed by *(b_3 - b_4 + b_5).*

The Excel spreadsheet created by Rhoades Shanock and colleagues (2010) generates three-dimensional graphs utilizing the four response surfaces. Nine graphs were created to examine 1) how youth and parent report of YWV relates to concurrent and distal outcomes, 2) the degree of discrepancy between reporters which best predicts these outcomes, and 3) how the direction of the discrepancy between self and parent report of YWV affects outcomes. Indeed, these analyses yield significantly more information regarding the discrepancy between youth and parent report of YWV than could be achieved via difference score methodology.

Endnote

[1] The data used in this [investigation] were made available by the National Data Archive on Child Abuse and Neglect, Cornell University, Ithaca, NY, and have been used with permission. Data from Longitudinal Studies of Child Abuse and Neglect (LONGSCAN) Assessments 0-14 were originally collected by Desmond K. Runyan, Howard Dubowitz, Diana J. English, Jonathan Kotch, Alan Litrownik, Richard Thompson and Terri Lewis & The LONGSCAN Investigator Group. Funding for the project was provided by the Office on Child Abuse and Neglect (OCAN), Children's Bureau, Administration for Children and Families, Dept. of Health and Human Services

(The National Center on Child Abuse and Neglect (NCCAN), under the Office of Human Services funded this consortium of studies during the early years of data collection from 04/01/1991 until NCCAN became part of OCAN in 1998.) (Award Number: 90CA1467, 90CA1481, 90CA1466, 90CA1458, 90CA1572, 90CA1569, 90CA1568, 90CA1566, 90CA1678, 90CA1681, 90CA1680, 90CA1676, 90CA1677, 90CA1679, 90CA1744, 90CA1745, 90CA1746, 90CA1747, 90CA1748, 90CA1749). The collector of the original data, the funder, NDACAN, Cornell University and their agents or employees bear no responsibility for the analyses or interpretations presented here.

Table 1. *Sample Demographics at Baseline, Age 8, and Age 12*

	% Baseline Sample N = 751	% Age 8 Sample N = 583	% Age 12 Sample N = 442
Child's Gender			
Male	49.5	47.5	48.6
Female	50.5	52.5	51.4
Child's Race			
African American	55.8	57.6	58.8
Caucasian	27.2	26.6	25.8
Mixed Race	10.3	9.6	9.0
Latino/a	5.1	5.0	4.8
Other	1.7	1.3	1.5
Sample Site			
Eastern	24.4	24.7	23.5
Midwestern	30.2	30.5	31.9
Southern	22.5	22.8	22.9
Northwestern	22.9	22.0	21.7

CHAPTER THREE

RESULTS

Descriptive Analysis

Prior to completing the analyses, skew and kurtosis were calculated for each variable of interest to inspect for univariate normality (see Table 2). Most of the predictor and outcome measures were normally distributed (skew and kurtosis between -1.00 and 1.00), though two measures were greatly outside of these parameters, including the CBCL internalizing symptoms scale at age 8 and the delinquency engagement measure at age 12. These variables were transformed to account for positive skew using procedures by Tabachnick and Fidell (2007), which included taking the square root of the variable. The transformation resulted in more acceptable levels of skew and kurtosis in each variable, which is presented in Table 2. Analyses were run with both the original and the transformed variables and both are presented. With respect to missing variables, any participant who was missing the parent victimization history measure was omitted from the study. At the item level, missing data were handled by replacement with the series mean. For all regression analyses, listwise deletion procedures were utilized to account for missing data. Lastly, using data screening procedures from Tabachnick and Fidell (2007), univariate outliers were defined as data with z-scores that were greater than ±3.3 on any variable of interest. However, when univariate outliers were inspected, the values were within the limits allowed by each measure. Of additional interest to the study is

including youth with all levels of symptoms, permitting scores are within acceptable ranges. Thus, no participants or scores were dropped due to outlier status.

Descriptive statistics were calculated for relevant variables in the study. The means, standard deviations, and correlation matrices for all variable of interest are found in Table 2. On the youth-witnessed violence measure, *t* tests revealed that youth reported witnessing a significantly number of incidents than parents reported ($t(574) = 21.134$, $p = .000$, $\alpha = .05$). With respect to concurrent functioning, the means for internalizing, externalizing, and total problems on the CBCL at age 8 interviews were below the borderline clinical range (i.e., *T* scores above 60). The mean for posttraumatic stress symptoms at age 8 was also below the clinical cut off (i.e., *T* scores above 65). Approximately 11% of the sample at age 8 interviews were above the clinical cutoff for internalizing symptoms, 18.8% for externalizing symptoms, 17.3% had a total problem score above the cutoff, and 14% had clinically significant trauma symptoms. Means for measures at the age 12 interviews were also below clinical ranges. Approximately 11.8% of the sample at age 12 interviews was above the clinical cutoff for internalizing symptoms, 18.9% for externalizing symptoms, 17.8% had a total problem score above the cutoff, and 1.2% had clinically significant trauma symptoms. With respect to delinquency, the age 12 sample endorsed engaging in less than one delinquent behavior on average.

Previous literature has identified a gender difference in discrepancies of youth and parent report of youth-witnessed violence, with lower discrepancies for girls (Ceballo et al., 2001). Additionally, research has offered evidence that boys are at risk for greater exposure to urban violence (Ceballo et al., 2001). In the current investigation, boys were

exposed to significantly greater incidents of YWV than their female counterparts ($t(581) = 2.742$, $p = .006$, $\alpha = .05$). The means for variables of interest separated by gender are presented in Table 3. A series of independent samples *t* tests were completed to determine if there were gender differences on outcome variables of interest. Only externalizing symptoms at age 8 ($t(616) = 2.310$, $p = .021$, $\alpha = .05$), posttraumatic stress symptoms at age 12 ($t(432) = -3.331$, $p = .001$, $\alpha = .05$), and delinquency at age 12 ($t(475) = 3.674$, $p = .000$, $\alpha = .05$) were significantly different between gender. Gender was then used as a covariate for analyses where gender was found to be significantly related to variables of interest or was otherwise dropped from regression analyses.

Antecedents of Parent-Youth Disagreement

The first set of analyses focused on discrepancies between youth and parent report of youth-witnessed violence as it related to parent history of trauma using a multivariate framework. The first regression examined whether the relationship between parent trauma history and youth-parent report was significant overall (i.e., an omnibus multivariate test based on Wilks's Λ, a test for youth and parent report jointly). Given that previous research has supported a gender difference in youth exposure to witnessed violence (Ceballo et al., 2001), a *t* test was conducted to determine if there was a significant difference for youth report of YWV by gender in this sample. An independent samples *t* test of YWV reported by youth suggested a significant difference ($t(581) = 2.742$, $p = .006$, $\alpha = .05$), with boys reporting greater witnessed violence. Gender was then added as a covariate in the multivariate analysis to account for this difference. Results of the multivariate test for youth and parent report are found in Table 4 and include unstandardized regression coefficients and standard errors (in parentheses). Within each

row, a subscript "a" indicates a significant Wilks' Λ between youth and parent report for the antecedent variable. When significant, the interpretation is that the antecedent variable is related to youth and parent report of YWV and the nature of the relationship can further be determined by examining the regression coefficients when youth and parent report scores are treated as separate dependent variables.

Results indicated that the gender of the youth was significantly related to youth and parent report of YWV considered jointly (Wilks' Λ = .986, $F(2, 552) = 3.855$, $p <$ .05) with an effect size (partial eta-squared, η^2) of .014. The regression coefficients for youth ratings considered separately were statistically significant, indicating youth endorsement of witnessing violence was different between boys and girls (see Table 4). Boys rated themselves as exposed to greater YWV than their female counterparts. When examining the role of parent history of victimization, a main effect for parent abuse history was found for youth and parent report of YWV (Wilks' Λ = .901, F (40, 1104) = 1.475, $p<.05$) with an effect size (partial eta-squared, η^2) of .051. Parents with greater history of victimization rated their children as experiencing greater incidents of YWV. Female caregivers with histories of abuse appear as overestimators of youth's exposure to violence, as youth report was not significant. Taken together, the separate regressions indicate that gender matters with respect to youth self-report; however, parent trauma history plays a more significant role than youth gender in predicting ratings of YWV.

Outcomes Associated with Parent-Youth Disagreement

The next set of analyses is focused on examining concurrent and longitudinal correlates of parent-child discrepancy of YWV. This was accomplished using polynomial regression and response surface mapping as detailed above. Prior to running the

polynomial regression, determining how many participants have discrepancies between the two predictor variables (i.e., youth report and parent report of YWV) is a recommended essential step (Rhoades Shanock et al., 2010). This was accomplished by transforming youth and parent reports into standardized scores and subtracting parent report from youth report. Any participant with a report of YWV one half of a standard deviation above or below (*Z* score above .5 or below -.5) the other report was considered to have discrepant values. Results indicated that approximately 34.8% of the parents reported greater incidents of YWV than youth, 32.9% of the sample provided similar incident of YWV, and 32.3% of youth reported greater incidents of YWV than parents. This provided a rationale for further exploration of discrepancies between parent and youth report of youth-witnessed violence using polynomial regression and response surface mapping.

Prior to comparing groups on key outcome variables, chi-square tests for independence were done to determine if youth in the three discrepancy groups (parents estimate more, agreement, or youth estimate more) differed in terms of gender. Gender was not shown to be related to grouping across agreement groups. However, gender was found to be significantly related to differences on multiple outcome measures, and thus, additional analyses were run to determine impact of using gender as a covariate in the polynomial regression. As recommended by previous literature (Edwards, 2002; Rhoades Shanock, 2010), the predictor variables of youth and parent report of YWV were centered on the midpoint of the measure. Centering around the midpoint aids in interpretability of the surface mapping graphs and limits the potential for multicollinearity. Next, new predictor variables were created within each outcome

variable of interest that included the squared centered parent and youth reports and the cross product of the centered parent and youth report of YWV.

Concurrent Functioning

The results of the polynomial regression for total problems at age 8 with parent and youth reports of YWV as predictors are presented in Table 5. For total problems on the CBCL at age 8, the R^2 was significant, $R^2 = .095$, $F(5,567) = 11.931$, $p = .000$. This means that 9.5% of the variance in CBCL Total Problems at age 8 was explained by the variables in the polynomial regression equation. The coefficients for centered youth report, centered parent report, and the square of the parent report were significant. Three response surfaces were significant: the slope along the line of perfect agreement (where parent and youth report of YWV are equal; denoted as *a*1), the curvature along the line of perfect agreement (denoted as *a*2), and the curvature along the line of incongruence (where parent and youth report vary; denoted as *a*4). The significant positive value at *a*1 indicates that concurrent total problems increase as both parent and youth report of YWV increase. The significant negative value at *a*2 indicates that the relationship between parent and youth report with total problems is nonlinear and has a convex surface on the three-dimensional graph that curves downward. The value at *a*3 was negative and approached significance, though it was not significant and does not support a statistically significant relationship between total problems and discrepancy. The value at *a*4 was significant and negative, suggesting that total problems increase more sharply as discrepancy decreases. The graphed response surface results are presented in Figure 1.

With respect to concurrent internalizing symptoms, results were analyzed using both the untransformed CBCL Internalizing raw scores and a transformation of the scores

to account for the significant problems with skew and kurtosis (see previous explanation). Results of both polynomial regressions are presented in Table 6. For the untransformed internalizing symptoms on the CBCL at age 8, the R^2 was significant, $R^2 = .057$, $F(5,567) = 6.837$, $p = .000$. This means that 5.7% of the variance in CBCL internalizing symptoms at age 8 was explained by the variables in the polynomial regression equation. The coefficients for centered parent report and the square of parent report were significant. All four response surfaces were significant. The slope along the line of perfect agreement ($a1$), the curvature along the line of perfect agreement ($a2$), the slope along the line of incongruence ($a3$), and the curvature along the line of incongruence ($a4$) were all significant. The significant positive value at $a1$ indicates that concurrent internalizing problems increase as both parent and youth report of YWV increase. The significant negative value at $a2$ indicates that the relationship between parent and youth report with internalizing symptoms is nonlinear and has a convex surface on the three dimensional graph that curves downward. The significant negative value at $a3$ indicates that internalizing problems decrease as the discrepancy between parent and youth report of YWV increases, and the significant negative value at $a4$ indicates a convex surface, with internalizing symptoms decreasing more sharply as discrepancy increases Again, it likely that the use of a parent report measure gauging symptoms is related to the increased parent-reported youth internalizing symptoms when parents report high YWV. The graphed response surface results are presented in Figure 2. When the transformed internalizing scores were utilized, the R^2 remained significant, $R^2 = .068$, $F(5,567) = 8.215$, $p = .000$, and the same coefficients remained significant (for parent report of YWV and the square of parent report of YWV). All surface variables remained significant, with

the exception of the curvature for the line of incongruence, which was no longer significant. A surface map was not created for the transformed data, due to a lack of difference in variable relationships with the untransformed data.

The relationship between externalizing symptoms and discrepancy was analyzed using two different polynomial equations. Because the *t* test for gender differences in externalizing symptoms at age 8 was significant, the polynomial equation with gender as a covariate was also run. Both results are presented in Table 7. For the polynomial equation without gender included, the R^2 was significant, $R^2 = .102$, $F(5,567) = 12.882$, $p = .000$. This means that 10.2% of the variance in CBCL externalizing symptoms at age 8 was explained by the variables in the polynomial regression equation. The coefficients for centered youth report, centered parent report, and the square of parent report were significant. Three response surfaces were significant. The slope along the line of perfect agreement ($a1$), the curvature along the line of perfect agreement ($a2$), and the curvature along the line of incongruence ($a4$) were all significant. The significant positive value at $a1$ indicates that concurrent externalizing problems increase as both parent and youth report of YWV increase. The significant negative value at $a2$ indicates that the relationship between parent and youth report with externalizing symptoms is nonlinear and has a convex surface on the three dimensional graph that curves downward. A significant negative value at $a4$ indicates a convex surface, with externalizing symptoms decreasing more sharply as discrepancy increases. The graphed response surface results are presented in Figure 3.

When gender was entered in the first step of the polynomial equation as a covariate, the transformed externalizing scores were utilized, the R^2 remained significant,

R^2 = .106, F(5,566) = 11.222, p = .000, and the same coefficients remained significant (for youth and parent report of YWV and the square of parent report of YWV). Of note, the coefficients for the covariate gender were not significant. All surface variables were significant, including $a3$, which is the slope of the line of incongruence. The t value was negative, indicating that externalizing problems decrease as the discrepancy between parent and youth report of YWV increases. The graphed response surface results are presented in Figure 4.

The relationship between concurrent trauma symptoms reported by youth and the discrepancy in parent and youth report of YWV are presented in Table 8. The R^2 was significant, R^2 = .098, F(5,558) = 12.133, p = .000. This means that 9.8% of the variance in trauma symptoms reported by youth at age 8 was explained by the variables in the polynomial regression equation. The coefficient for centered youth report was significant and two response surfaces were significant. The slope along the line of perfect agreement ($a1$) and the slope along the line of incongruence ($a3$) were both significant. The significant positive value at $a1$ indicates that concurrent trauma symptoms increase as both parent and youth report of YWV increase. The significant positive value at $a3$ indicates that trauma symptoms increase as the discrepancy between parent and youth report of YWV increases. It is important to note that the trauma symptom measure was completed by youth and the significant positive value is in contrast to the relationship between discrepancy in YWV and the previously reviewed parent-rated symptoms via the CBCL. The surface graph is presented in Figure 5.

Longitudinal Functioning

The results of the polynomial regression for total problems at age 12 with parent and youth reports of YWV as predictors are presented in Table 9. For total problems on the CBCL at age 12, the R^2 was significant, $R^2 = .037$, $F(5,421) = 3.193$, $p = .008$. This means that 3.7% of the variance in longitudinal CBCL Total Problems was explained by the variables in the polynomial regression equation. It is notable than none of the coefficients in the regression equation were significant and only one response surface was significant. The slope along the line of perfect agreement ($a1$) was significant, with a significant positive value indicating that total problems at age 12 increase as both parent and youth report of YWV at age 8 increases. The slope along the line of incongruence was not significant, which means that discrepancy in reporting of YWV is not predictive of longitudinal total symptoms. The graphed response surface results are presented in Figure 6.

With respect to longitudinal internalizing symptoms, results of the polynomial regression are presented in Table 10. For internalizing symptoms on the CBCL at age 12, the R^2 was significant, $R^2 = .027$, $F(5,421) = 2.329$, $p = .042$. This means that 2.7% of the variance in longitudinal CBCL Internalizing Symptoms was explained by the variables in the polynomial regression equation. None of the coefficients in the regression equation were significant and only one response surface was significant. The slope along the line of perfect agreement ($a1$) was significant and positive, indicating that internalizing symptoms at age 12 increase as both parent and youth report of YWV increase. The slope along the line of incongruence was not significant, meaning that discrepancy in reporting of YWV is not predictive of longitudinal internalizing

symptoms. The graphed response surface results are presented in Figure 7.

Results for the remaining indicators of longitudinal functioning, including externalizing symptoms, trauma symptoms, and engagement in delinquent activities at age 12 are reported in Table 11, Table 12, and Table 13. For externalizing symptoms on the CBCL at age 12, the R^2 was significant, $R^2 = .035$, $F(5,421) = 3.061$, $p = .010$. This means that 3.5% of the variance in longitudinal externalizing symptoms was explained by the variables in the polynomial regression equation. None of the coefficients in the regression equation were significant and no response surfaces were significant. For trauma symptoms at age 12, the R^2 was not significant, nor were any regression coefficients or response surfaces. Because a *t* test for gender differences on age 12 trauma symptoms was significant, the regression equation was also run with gender as a covariate. The R^2 was significant, $R^2 = .053$, $F(6,385) = 3.603$, $p = .002$. This means that 5.3% of the variance in longitudinal trauma symptoms was explained by the variables in the polynomial regression equation when gender was included as a covariate. However, the only significant regression coefficient was gender and no response surfaces were significant. For engagement in delinquent activities as reported by youth at age 12, the R^2 was significant, $R^2 = .040$, $F(5,424) = 3.508$, $p = .004$. No regression coefficients or surface values were significant. When gender was tested as a covariate (due to significant results of a *t* test for gender differences at age 12 delinquency engagement), the R^2 was significant, $R^2 = .061$, $F(6,423) = 4.559$, $p = .000$, meaning that 6.1% of the variance in longitudinal delinquency engagement was explained by the variables in the polynomial regression equation when gender was included as a covariate. Again, gender was the only significant regression coefficient and all response surfaces remained insignificant. No

response surface graphs for longitudinal externalizing symptoms, trauma symptoms, or delinquency engagement were created due to lack of significant response surfaces.

Table 2

Correlations for Variables of Interest

Variable	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1. Parent Victimization History-Total Abuse	1											
2. Youth Report of Youth Witnessed Violence	.039	1										
3. Parent Report of Youth Witnessed Violence	.161**	.135**	1									
4. Concurrent Internalizing Symptoms (CBCL)	.192**	.082	.197**	1								
5. Concurrent Externalizing Symptoms (CBCL)	.202**	.167**	.247**	.615**	1							
6. Concurrent Total Problems (CBCL)	.220**	.138**	.258**	.849**	.902**	1						
7. Longitudinal Internalizing Symptoms (CBCL)	.180**	.083	.135**	.559**	.448**	.550**	1					
8. Longitudinal Externalizing Symptoms (CBCL)	.172**	.147**	.131**	.367**	.639**	.575**	.608**	1				
9. Longitudinal Total Problems (CBCL)	.198**	.137**	.145**	.500**	.612**	.647**	.850**	.894**	1			
10. Concurrent Traumatic Stress Symptoms (TSC)	.057	.307**	.045	.079	.106*	.102*	.076	.089	.100*	1		
11. Longitudinal Traumatic Stress Symptoms (TSC)	.077	.107*	.075	.054	.068	.069	.198**	.073	.159**	.170**	1	
12. Longitudinal Delinquency Engagement	-.002	.181**	.077	.020	.118*	.079	.111*	.182**	.151**	.123*	.243**	1
Mean (*N*)	2.58	4.51	1.57	6.55	11.44	28.57	7.08	10.71	27.4	10.06	4.21	.79
Standard Deviation	3.13	2.96	1.96	6.00	8.39	19.84	6.32	8.67	20.87	6.56	4.24	1.36
Skew	1.56	.456	1.50	1.74[a]	.917	1.09	1.39	1.26	1.38	.467	1.55	2.59[b]
Kurtosis	2.73	-0.14	2.58	4.23[a]	0.77	1.42	2.48	1.95	2.83	-0.42	2.99	8.81[b]

** Correlation is significant at the 0.01 level (2-tailed). *Correlation is significant at the .05 level (2-tailed).

a. Transformed skew concurrent internalizing symptoms (.177); transformed kurtosis (.134)

b. Transformed skew longitudinal delinquency engagement (1.01); transformed kurtosis (-.033)

Table 3

Means and Standard Deviations by Gender for Measures

Variable	Boys		Girls	
	M(n)	*SD*	*M(n)*	*SD*
Youth Report of YWV	4.86(277)	2.94	4.20(306)	2.95
Parent Report of YWV	1.67(276)	2.04	1.49(299)	1.88
Concurrent Internalizing	6.49(299)	6.02	6.59(319)	5.99
Concurrent Externalizing	12.25(299)	8.58	10.69(319)	8.15
Concurrent Total Problems	29.64(299)	20.28	27.58(319)	19.41
Longitudinal Internalizing	6.83(246)	6.10	7.33(245)	6.55
Longitudinal Externalizing	11.25(246)	8.65	10.16(245)	8.68
Longitudinal Total Problems	27.78(246)	20.37	27.01(245)	21.40
Concurrent Traumatic Stress	10.09(272)	6.90	10.04(300)	6.25
Longitudinal Traumatic Stress	3.55(221)	3.90	4.89(213)	4.48
Longitudinal Delinquency	1.01(245)	1.60	0.56(232)	1.00

Note. Higher scores reflect increased levels of the construct indicated by the variable name.

Table 4

Multivariate Regressions of Youth and Parent Report of YWV

Antecedent	Youth	Parent
Constant	4.871(.177)***	1.681(.117)***
Gender	-.679(.244)** $_{a}$	-.205(.162)
Parent Victimization History	.043(.040)$_{a}$	.105(.027)*
R^2	.015*	.029***
Overall Wilks' Λ		.901*

Note. *p<.05, **p<.01, ***p<.001

$_{a,}$ significant Wilks' Λ between youth and parent report for the antecedent variable

Gender, 0 = *male*, 1 = *female*

Parent Victimization History is total types of abuse occurring in youth and adulthood; 11 items, ranging from 0 to 1

Table 5

Correlations Between Predictors and Results of Polynomial Regression With Youth-Parent Report of Youth-Witnessed Violence Predicting Concurrent Total Problems

	1	2	3	4	β SE
Intercept					27.143*** 1.28
1. Youth Report (Centered)	--				1.377* . .594
2. Parent Report (Centered)	-.103	--			3.253***. .754
3. Youth Report^2	-.038	.011	--		-.095 .071
4. Youth X Parent	.017	-.070	-.002	--	.111 .145
5. Parent Report^2	.003	-.052	.000	-.001	-.407*** .134
R^2					.095*** 18.672

	Coefficient	SE	*t* value
Surface value: a_1	4.63	0.85	5.474***
Surface value: a_2	-0.39	0.19	-2.005*
Surface value: a_3	-1.88	1.06	-1.767
Surface value: a_4	-0.61	0.22	-2.741***

Note. N=618. Youth and Parent ratings measured on a 1-3 scale with higher numbers representing higher report of YWV. a_1 = slope of the line of perfect agreement, a_2= curvature of the line of perfect agreement, a_3 = slope of the line of incongruence a_4 = curvature of the line of incongruence.
* $p < .05$, ** $p<.01$, *** $p<.001$

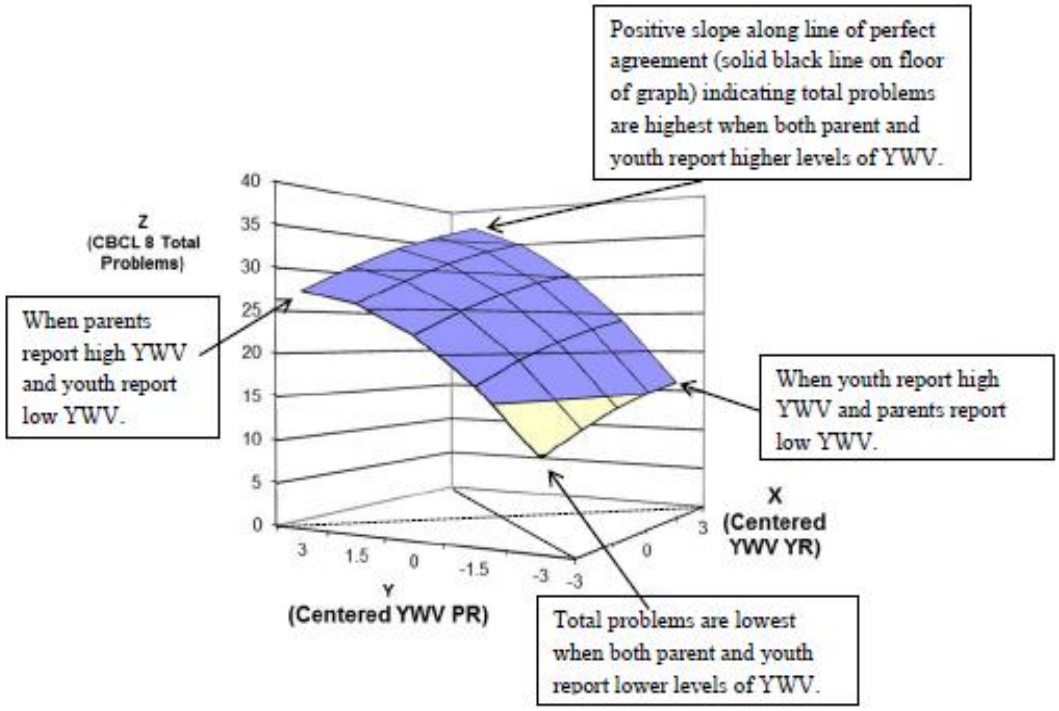

Figure 1 Response Surface Graph of Concurrent Total Problems on the CBCL as Predicted by Discrepancy in Parent and Youth Reports of YWV

Table 6

Correlations Between Predictors and Results of Polynomial Regression With Youth-Parent Report of Youth-Witnessed Violence Predicting Concurrent Internalizing Symptoms

	Untransformed						Transformed	
	β	SE	1	2	3	4	β	SE
Intercept	6.47***	.404					2.28***	.080
1. Youth Report (Centered)	.297	.188	--				.029	.037
2. Parent Report (Centered)	.915***	.238	-0.10	--			.219***	.047
3. Youth Report^2	-.026	.022	-.004	.001	--		-.001	.004
4. Youth X Parent	.004	.046	.002	-.007	.00	--	-.002	.009
5. Parent Report^2	-.117***	.042	.000	-.005	-1.74E-5	.00	-.027	.008
R^2	.057***	5.898					.068***	1.167

	Coefficient	SE	*t* value
Surface value: a_1	1.21	0.30	3.996***
Surface value: a_2	-0.14	0.07	-2.113*
Surface value: a_3	-0.62	0.30	-2.038*
Surface value: a_4	-0.15	0.07	-2.234*

Note. N=618. The outcome variable of Internalizing Symptoms is presented with untransformed and transformed data (square root of raw scores). Youth and Parent ratings measured on a 1-3 scale with higher numbers representing higher report of YWV. a_1 = slope of the line of perfect agreement, a_2= curvature of the line of perfect agreement, a_3 = slope of the line of incongruence a_4 = curvature of the line of incongruence. Correlations and surface value coefficients in table represent values from untransformed data. Using transformed data, surface value a_3 was not significant.

* $p < .05$, ** $p<.01$, *** $p<.001$

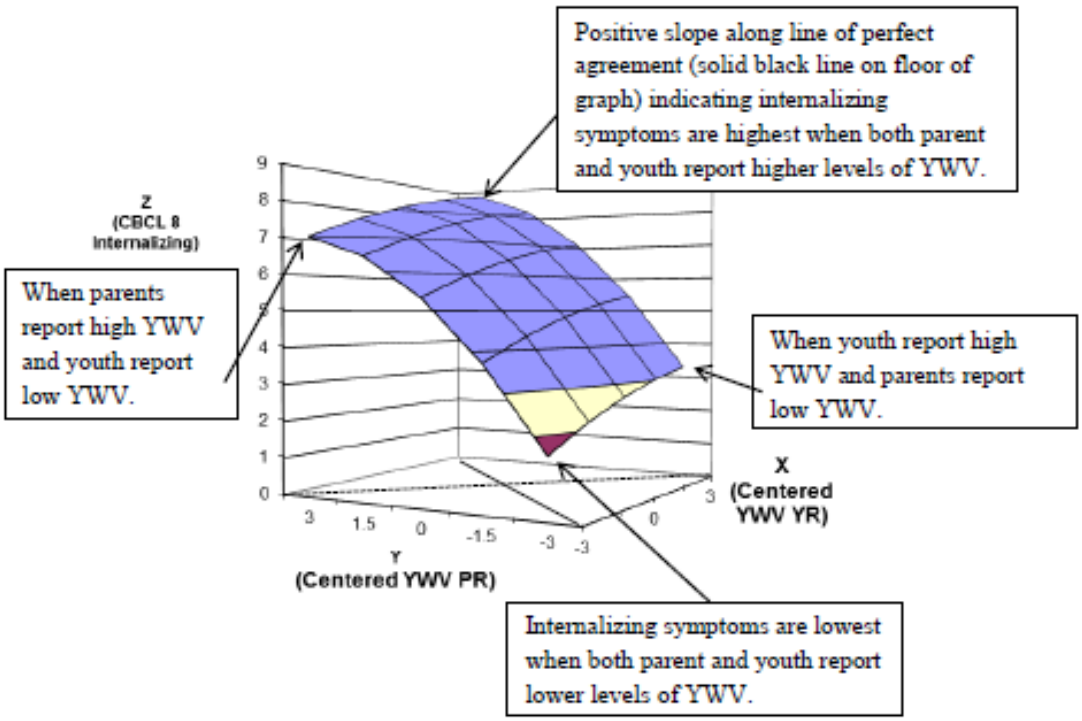

Figure 2 Response Surface Graph of Concurrent Internalizing Symptoms on the CBCL as Predicted by Discrepancy in Parent and Youth Reports of YWV (Without Transformed CBCL Scores).

Table 7

Correlations Between Predictors and Results of Polynomial Regression With Gender as a Covariate, Youth-Parent Report of Youth-Witnessed Violence as Predictors and Concurrent Externalizing Symptoms as the Outcome

	Model 1						Model 2	
	β	SE	1	2	3	4	β	SE
Intercept	10.76***	.535					11.41***	.663
1. Youth Report (Centered)	.592*	.248	-				.551*	.249
2. Parent Report (Centered)	1.411***	.315	-.018	-			1.43***	.315
3. Youth Report^2	-.031	.030	-.007	.002	-		-.028	.030
4. Youth X Parent	.046	.060	.003	-.012	.000	-	.040	.060
5. Parent Report^2	-.203***	.056	.000	-.009	-3.03E-5	.00	.21***	.056
R^2	.102***	7.805					.106***	7.793

	Coefficient	SE	*t* value	Coefficient	SE	*t* value
Surface value: a_1	2.00	0.35	5.671***	1.98	0.35	5.60***
Surface value: a_2	-0.19	0.09	-2.160*	-0.19	0.09	-2.22*
Surface value: a_3	-0.82	0.44	-1.847	-0.88	0.44	-1.98*
Surface value: a_4	-0.28	0.09	-3.217**	-0.27	0.09	-3.14**

Note. N=618. Model 1 represents the regression coefficients and values without gender as a covariate and Model 2 includes gender. Correlations are presented for Model 1. Youth and Parent ratings measured on a 1-3 scale with higher numbers representing higher report of YWV. Gender: 0 = Male, 1 = Female. a_1 = slope of the line of perfect agreement, a_2= curvature of the line of perfect agreement, a_3 = slope of the line of incongruence a_4 = curvature of the line of incongruence.
* $p < .05$, ** $p<.01$, *** $p<.001$

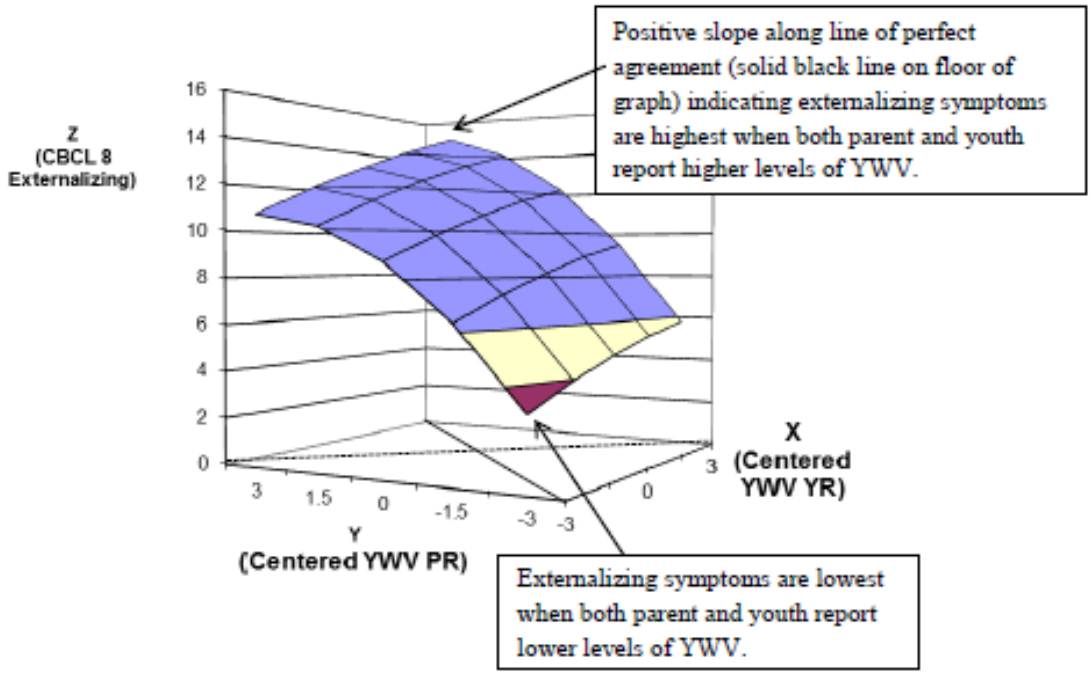

Figure 3 Response Surface Graph of Concurrent Externalizing Symptoms on the CBCL as Predicted by Discrepancy in Parent and Youth Reports of YWV (Without Gender as a Covariate).

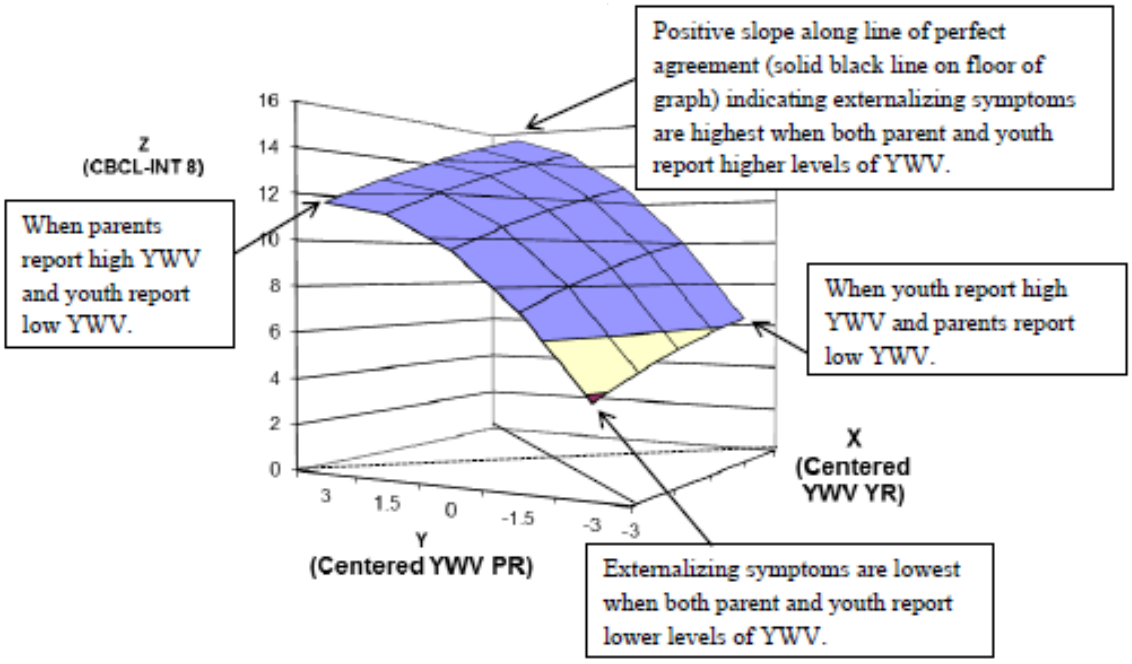

Figure 4 Response Surface Graph of Concurrent Externalizing Symptoms on the CBCL as Predicted by Discrepancy in Parent and Youth Reports of YWV (With Gender as a Covariate).

Table 8

Correlations Between Predictors and Results of Polynomial Regression With Youth-Parent Report of Youth-Witnessed Violence Predicting Concurrent Trauma Symptoms

	1	2	3	4	β	SE
Intercept					8.075***	.431
1. Youth Report (Centered)	-				.900***	.200
2. Parent Report (Centered)	-.012	-			.130	.254
3. Youth Report^2	-.004	.001	-		-.031	.024
4. Youth X Parent	.002	-.008	.000	-	.002	.049
5. Parent Report^2	.000	-.006	-1.24E-5	.00	-.047	.045
R^2					.098***	6.252
		Coefficient			SE	*t* value
Surface value: a_1		1.03			0.28	3.630***
Surface value: a_2		-0.08			0.07	-1.077
Surface value: a_3		0.77			0.36	2.148*
Surface value: a_4		-0.08			0.07	-1.134

Note. N=572. Youth and Parent ratings measured on a 1-3 scale with higher numbers representing higher report of YWV. a_1 = slope of the line of perfect agreement, a_2= curvature of the line of perfect agreement, a_3 = slope of the line of incongruence a_4 = curvature of the line of incongruence.
* $p < .05$, ** $p<.01$, *** $p<.001$

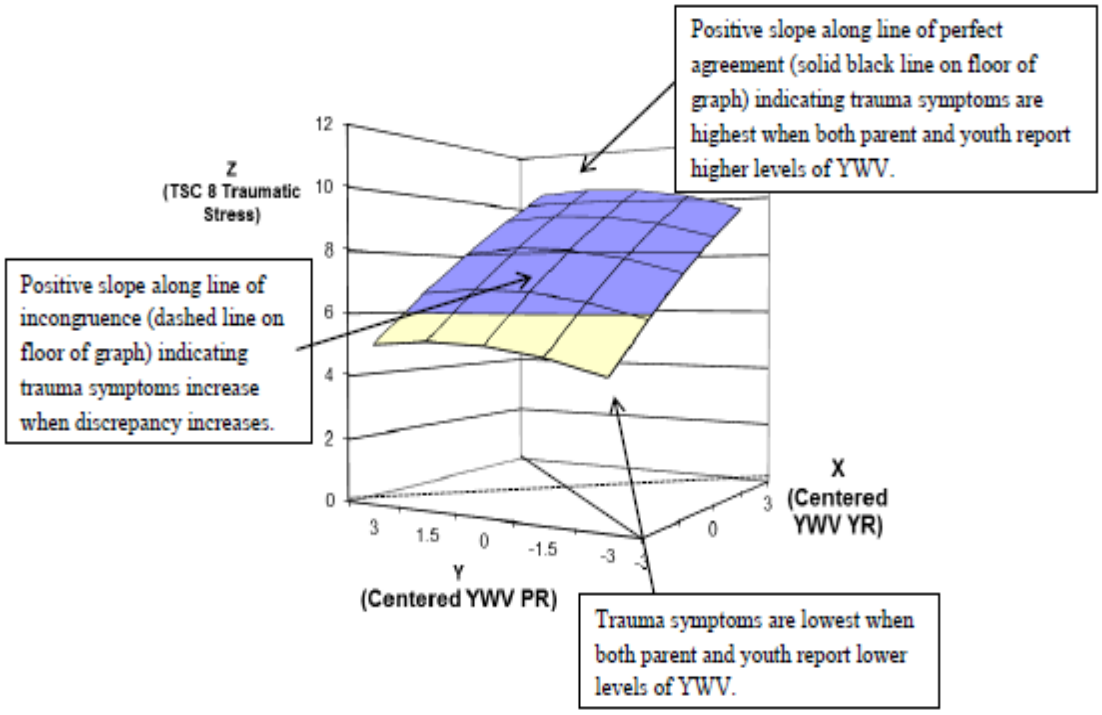

Figure 5 Response Surface Graph of Concurrent Trauma Symptoms on the TSC as Predicted by Discrepancy in Parent and Youth Reports of YWV.

Table 9

Correlations Between Predictors and Results of Polynomial Regression With Youth-Parent Report of Youth-Witnessed Violence Predicting Longitudinal Total Problems

	1	2	3	4	β	SE
Intercept					24.99***	1.575
1. Youth Report (Centered)	-				1.167	.747
2. Parent Report (Centered)	-.168	-			1.596	.941
3. Youth Report^2	-.063	.018	-		-.049	.093
4. Youth X Parent	.032	-.104	-.004	-	-.006	.176
5. Parent Report^2	.004	-.080	.000	-.002	-.076	.165
R^2					.037	20.160
		Coefficient			SE	*t* value
Surface value: a_1		2.76			1.20	2.293*
Surface value: a_2		-0.13			0.23	-0.559
Surface value: a_3		-0.43			1.20	-0.358
Surface value: a_4		-0.12			0.28	-0.424

Note. N=491. Youth and Parent ratings measured on a 1-3 scale with higher numbers representing higher report of YWV. a_1 = slope of the line of perfect agreement, a_2= curvature of the line of perfect agreement, a_3 = slope of the line of incongruence a_4 = curvature of the line of incongruence.

* $p < .05$, ** $p<.01$, *** $p<.001$

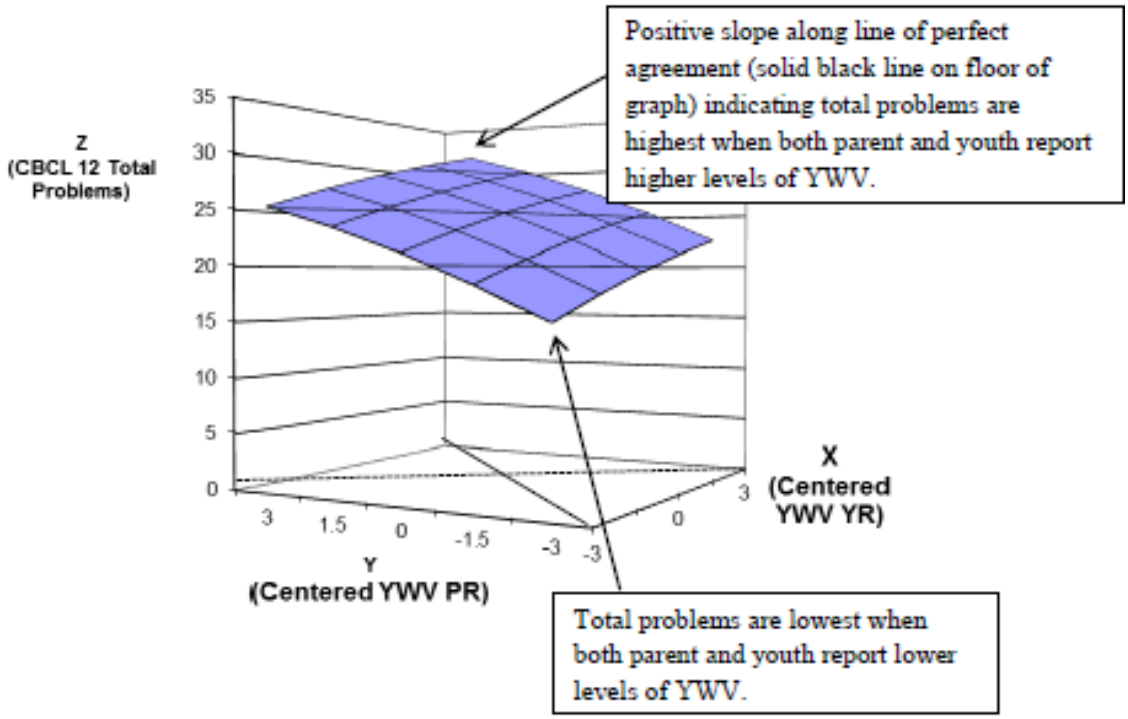

Figure 6 Response Surface Graph of Longitudinal Total Problems on the CBCL as Predicted by Discrepancy in Parent and Youth Reports of YWV.

Table 10

Correlations Between Predictors and Results of Polynomial Regression With Youth-Parent Report of Youth-Witnessed Violence Predicting Longitudinal Internalizing Symptoms

	1	2	3	4	β	SE	
Intercept					6.748	.498***	
1. Youth Report (Centered)	-				.370	.236	
2. Parent Report (Centered)	.003	-			.402	.298	
3. Youth Report^2	-.006	.002	-		-.032	.030	
4. Youth X Parent	.003	-.010	.00	-	.038	.056	
5. Parent Report^2	.00	-.008	-3.46E-5	.00	-.040	.052	
R^2					.027*	6.371	
		Coefficient			SE		*t* value
Surface value: a_1		0.77			0.38		2.031*
Surface value: a_2		-0.03			0.08		-0.416
Surface value: a_3		-0.03			0.38		-0.084
Surface value: a_4		-0.11			0.08		-1.347

Note. N=491. Youth and Parent ratings measured on a 1-3 scale with higher numbers representing higher report of YWV. a_1 = slope of the line of perfect agreement, a_2= curvature of the line of perfect agreement, a_3 = slope of the line of incongruence a_4 = curvature of the line of incongruence.
* $p < .05$, ** $p<.01$, *** $p<.001$

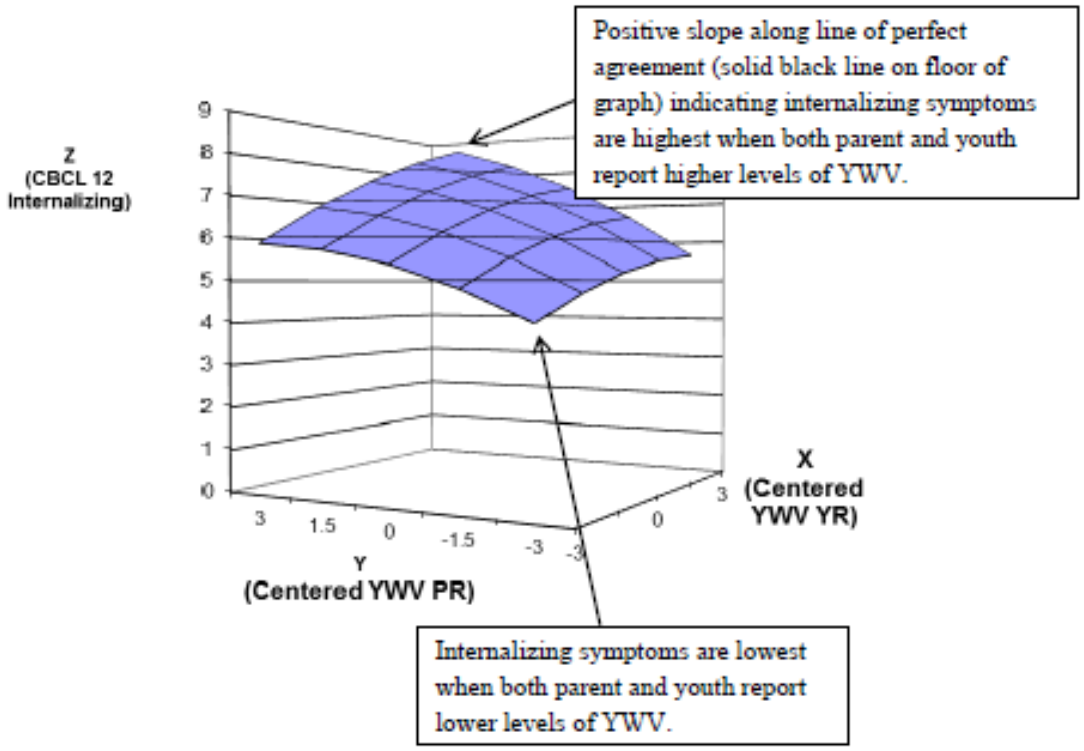

Figure 7 Response Surface Graph of Longitudinal Internalizing Symptoms on the CBCL as Predicted by Discrepancy in Parent and Youth Reports of YWV

Table 11

Correlations Between Predictors and Results of Polynomial Regression With Youth-Parent Report of Youth-Witnessed Violence Predicting Longitudinal Externalizing Symptoms

	1	2	3	4	β	SE
Intercept					9.736***	.653
1. Youth Report (Centered)	-				.265	.310
2. Parent Report (Centered)	-.029	-			.585	.390
3. Youth Report^2	-.011	.003	-		.015	.039
4. Youth X Parent	.005	-.018	-.001	-	-.007	.073
5. Parent Report^2	.001	-.014	-5.96E-5	.00	-.021	.068
R^2					.035*	8.358
	Coefficient			SE		*t* value
Surface value: a_1	0.85			0.44		1.949
Surface value: a_2	-0.01			0.10		-0.134
Surface value: a_3	-0.32			0.55		-0.578
Surface value: a_4	0.00			0.12		0.009

Note. N=491. Youth and Parent ratings measured on a 1-3 scale with higher numbers representing higher report of YWV. a_1 = slope of the line of perfect agreement, a_2= curvature of the line of perfect agreement, a_3 = slope of the line of incongruence a_4 = curvature of the line of incongruence.

* $p < .05$, ** $p<.01$, *** $p<.001$

Table 12

Correlations Between Predictors and Results of Polynomial Regression With Gender as a Covariate, Youth-Parent Report of Youth-Witnessed Violence as Predictors, and Longitudinal Trauma Symptoms as the Outcome

	Model 1						Model 2	
	β	SE	1	2	3	4	β	SE
Intercept	3.79***	.348					2.838***	.428
1. Youth Report (Centered)	.100	.166	-				.143	.164
2. Parent Report (Centered)	.118	.210	-.008	-			.061	.207
3. Youth Report^2	.006	.021	-.003	.001	-		.005	.021
4. Youth X Parent	.035	.041	.001	-.006	.00	-	.040	.040
5. Parent Report^2	-.032	.035	.00	-.004	-8.95E-7	-5.37E-5	-.021	.035
R^2	.019	4.198					.053*	4.130

	Coefficient	SE	*t* value	Coefficient	SE	*t* value
Surface value: a_1	0.22	0.24	0.924	0.20	0.23	0.880
Surface value: a_2	0.01	0.06	0.153	0.02	0.06	0.427
Surface value: a_3	-0.02	0.30	-0.061	0.08	0.29	0.280
Surface value: a_4	-0.06	0.06	-1.072	-0.06	0.06	-0.966

Note. N=434. Model 1 represents the regression coefficients and values without gender as a covariate and Model 2 includes gender. Correlations are presented for Model 1. Youth and Parent ratings measured on a 1-3 scale with higher numbers representing higher report of YWV. Gender: 0 = Male, 1 = Female. a_1 = slope of the line of perfect agreement, a_2= curvature of the line of perfect agreement, a_3 = slope of the line of incongruence a_4 = curvature of the line of incongruence..

* $p < .05$, ** $p<.01$, *** $p<.001$

Table 13

Correlations Between Predictors and Results of Polynomial Regression With Gender as a Covariate, Youth-Parent Report of Youth-Witnessed Violence as Predictors, and Longitudinal Delinquency Engagement as the Outcome

	Model 1						Model 2	
	β	SE	1	2	3	4	β	SE
Intercept	.543***	.101					.773***	.125
1. Youth Report (Centered)	.020	.049	-				.007	.048
2. Parent Report (Centered)	.028	.061	-.001	-			.042	.061
3. Youth Report^2	.008	.006	.000	6.88E-5	-		.009	.006
4. Youth X Parent	-.001	.012	.000	.000	-1.39E-5	-	-.003	.012
5. Parent Report^2	.004	.010	1.97E-5	.000	-9.21E-7	-3.55E-6	.002	.010
R^2	.040*	1.269					.061***	1.257

	Coefficient	SE	*t* value	Coefficient	SE	*t* value
Surface value: a_1	0.05	0.06	0.748	0.01	0.04	0.286
Surface value: a_2	0.01	0.02	0.622	0.01	0.01	1.097
Surface value: a_3	-0.01	0.09	-0.089	0.03	0.04	0.809
Surface value: a_4	0.01	0.02	0.834	0.00	0.01	0.393

Note. N=477. Model 1 represents the regression coefficients and values without gender as a covariate and Model 2 includes gender. Correlations are presented for Model 1. Youth and Parent ratings measured on a 1-3 scale with higher numbers representing higher report of YWV. Gender: 0 = Male, 1 = Female. a_1 = slope of the line of perfect agreement, a_2= curvature of the line of perfect agreement, a_3 = slope of the line of incongruence a_4 = curvature of the line of incongruence.
* $p < .05$, ** $p<.01$, *** $p<.001$

CHAPTER FOUR

DISCUSSION

The current study investigated discrepancies in parent and youth report of YWV, including the relationship between parent history of victimization and discrepancy and how discrepancies in reports of YWV predict outcomes for youth. Further, the investigation utilized an updated methodology for examining discrepancies that addressed many of the problems associated with previous discrepancy research. Multivariate regression analysis was utilized to examine parent history of abuse as a predictor of discrepant reports of YWV between youth and female caregivers. Polynomial regression and response surface analyses were utilized as a novel approach to understanding the relationship between discrepancies in parent and youth reports of YWV as they relate to concurrent and distal internalizing, externalizing, and trauma symptoms, total problems, and youth delinquency. These analyses were borrowed from the industrial/ organizational psychology literature at the urging of researchers in the field of child discrepancy research (e.g., De Los Reyes, 2011) to aid in a more nuanced view of predictors and associated outcomes of discrepant reports between multiple informants. This chapter summarizes key findings from the investigation and connects findings with previous literature. Limitations of the study, recommendations for future study, and implications for practice will also be presented.

Main Findings

Consistent with previous studies examining discrepancies in YWV, youth reported witnessing significantly more incidents of violence than parents reported (Lewis et al., 2010, 2012, 2013; Zimmerman & Pogarsky, 2011; Zimmerman & Farrell, 2013). The investigations by Lewis and colleagues (2010, 2012, 2013) also utilized the LONGSCAN sample, but focused on reports of YWV at age 12 interviews. This investigation extends the literature by examining discrepancy in a younger sample (age 8), which previous investigators have suggested are less likely to demonstrate discrepant reports from parents (Ceballo et al., 2001). The results of the investigation identified greater violence exposure for boys, which aligns with previous investigations of contextual factors associated with YWV discrepancy (Ceballo et al., 2001; Zimmerman & Farrell, 2013). With respect to discrepancy in reports of YWV, this sample demonstrated the full range of discrepancy patterns (i.e., youth reporting more YWV, parents reporting greater YWV, agreement, etc.). Roughly a third of the sample had parents who reported greater incidents of YWV than youth, a third provided similar incidents of YWV, and a third of youth reported greater incidents of YWV than parents. Findings are consistent with the growing body of research that suggests discrepancies in YWV and trauma literature are the rule rather than the exception (Achenbach, 2006, De Los Reyes, 2011).

This study was significant in exploring a previously unexamined predictor of discrepancies in youth exposure to violence –parent trauma history. Given that prior research had identified a gender difference in youth exposure to witnessed violence and that gender was significant in predicting YWV in the present sample, the multivariate

analysis was carried out using gender as a covariate. Gender emerged as a significant predictor of discrepancies in parent and youth report of YWV, with boys reporting greater incidents of witnessed violence. With gender controlled in the multivariate regression, results supported a significant contribution of parent history of victimization to discrepant reports of YWV. These results support the hypothesis for research question one which predicted there would be greater discrepancy in reports of YWV for parents with trauma histories. Given the lack of prior research supporting a directional hypothesis, the current investigation took an exploratory approach to addressing question one. Results ultimately provided support for a directional relationship between parent victimization history and discrepant reports of YWV, with parents who have a greater history of trauma being more likely to overreport youth exposure to violence. Though one study (Zimmerman & Farrell, 2013) found that parents who report high levels of YWV are likely to be overestimating, the bulk of previous research on youth-witnessed violence has focused on underreporting by parents. Although the observed discrepancy is admittedly small in magnitude, the current finding is a valuable addition to the growing body of discrepancy and trauma literature. At the same time, there may be other parent, youth, and relationship factors that contribute to discrepancies in parent and youth report of YWV. The following interpretations of the findings may offer directions for further exploration of facets that lead to discrepancies.

One interpretation of these findings is that parent history of abuse may lead parents to become hypervigilant with respect to YWV. This possibility is partially supported by past research suggesting that parents with higher PTSD symptoms are prone to reporting higher levels of symptomatology in their children following exposure to

potentially traumatic experiences (PTEs; Oransky et al., 2013), although parental PTSD symptoms did not predict discrepancy in the sample. Similarly, mothers with depression symptoms have been more likely to rate their youth as depressed (Chi & Hinshaw, 2002) and to endorse externalizing symptoms (Ehrlich et al., 2011), all of which may support the depression distortion hypothesis that depressed parents are more likely to perceive and rate negative behaviors –though it is unclear if this would expand to include higher rating of YWV. Further study is needed to understand the connection between parent trauma history and discrepancy in reports of YWV, starting with mediational analyses of parent PTSD and depression symptoms.

An alternate interpretation of the finding that parents with trauma histories are more likely to report high levels of YWV is that youth may be more likely to minimize their history of exposure to YWV when they have a parent with significant trauma exposure. Parents with significant victimization histories may exhibit other qualities that impact the parent-child relationship such that youth minimize trauma exposure. For example, the parent victimization measure included items reflecting abuse experienced during adulthood. It could be that parents with greater victimization histories are also parents who are involved in intrafamilial violence, and it has been suggested that parents with particularly chaotic or violent homes may have difficulty giving an accurate rating of what violence youth have observed (Appel & Holden, 1998; Lewis et al., 2010; Litrownik, Newton, Hunter, English, & Everson, 2003). Perhaps youth in these settings would be motivated to use minimizing strategies for managing distress and exposure to distressing events, resulting in discrepant reports with greater endorsement of YWV by parents. These hypotheses warrant investigation in future studies.

The second set of analyses was focused on correlates of youth and parent discrepancy of YWV. Polynomial regression analyses and response surface mapping were proposed as a new model of investigating discrepancies in YWV. Parent and youth ratings of youth's exposure to violence were entered into the regression equation separately to determine whether agreement or disagreement predicted youth symptoms and functioning. This methodology has been recommended by researchers (Laird & De Los Reyes, 2013) to address the problems associated with difference score methods, which has been the primary method for assessing discrepant reports of YWV. These analyses were applied to parent report of youths' concurrent (i.e., at the time of the measured discrepancy) internalizing and externalizing symptoms, as well as total problems. They were also used to predict youth report of concurrent trauma symptoms. Additionally, polynomial regression was used to examine distal (i.e., four years after measured discrepancy) internalizing, externalizing, and trauma symptoms, as well as total problems and youth report of engagement in delinquent behaviors.

The hypothesis for question two was not supported. It was expected that discrepant reports in YWV would predict the poorest functioning; however, results suggest that symptoms are the worst when parent and youth agree and report high exposure to YWV. For all of the concurrent functioning indicators, including those utilizing parent report (internalizing, externalizing, and total problems) and those using youth report (trauma symptoms), symptoms/problems were the highest when both youth and parent reported high YWV. These results are not surprising and overlap with past investigations using concordance group methodology (Hungerford, Ogle, & Clements, 2010; Lewis et al., 2012). It is likely that for more severe incidents of violence, which

are likely to yield overlapping endorsements for parents and youth, there would be a greater risk for developing symptoms (Zinzow et al., 2009). However, there is some prior research that suggests symptoms are most likely when parents underestimate youth exposure to violence –though these investigations have utilized youth self-report to rate functioning (e.g., Goodman, 2013; Zimmerman & Pogarsky, 2011). The current study did find different patterns of discrepancy directionality predicting youth functioning that is dependent on rating source. These results will be further reviewed in the following sections.

With respect to parent reports of concurrent functioning predicted by YWV discrepancy, a number of common themes emerged. When both parent and youth reported high violence exposure, internalizing and externalizing symptoms were highest. Similarly, when both parent and youth reported low violence exposure, symptoms were lowest. However, when it came to discrepancy, the relationship was significant and negative, indicating that when parents and youth disagreed (i.e., greater discrepancy), symptom ratings decreased. The YWV discrepancy relationship with parent rating of total problems approached statistical significance in the same pattern as internalizing and externalizing symptoms. These results are counter to previous investigations suggesting that parent underreporting of YWV is most associated with poor functioning (Goodman, 2013; Richters & Martinez, 1993; Zimmerman & Pogarsky, 2011). More specifically, the response surface analyses suggested that when parent report of YWV was higher than youth report, this was associated with greater parent reported symptoms than when youth reported greater YWV than parents. It is important to note, Lewis and colleagues (2010) did not find a significant interaction for informant and externalizing symptoms using the

same sample of youth as this investigation. This difference may highlight the differing methodology for coding YWV (dichotomizing any witness violence endorsement versus retaining variance in ratings of YWV across items) or perhaps the different time point the data was collected (age 8 in this investigation and age 12 for Lewis and colleagues).

Oransky and colleagues (2013) found a similar pattern of results in an investigation of youth exposure to a broad range of traumatic experiences. Parent ratings of youth symptoms were not associated with discrepancy in parent-youth ratings and rather parent trauma symptoms emerged as the most significant predictor of parent rated PTSD symptoms for youth. It is logical that when parents report exposure to violence for their children, they may also be hyperattuned to symptoms patterns and provide parallel reports (i.e., higher exposure with greater symptomatology). What is not clear in the current investigation is whether the corresponding parent report of YWV and report of symptoms represents situations in which parents are over-reporting or situations in which children are minimizing their experiences. It could be that parents experiencing their own trauma symptoms are overly vigilant in endorsing trauma exposure and symptoms for their children, as suggested by prior research (Kassam-Adams et al. 2006; Oransky et al., 2013). However, it could also be that youth are engaging maladaptive coping strategies such disengagement coping (i.e., disengaging from distress by denying the existence of a stressor and/or avoiding unwanted thoughts and feelings associated with stressor; Compas, Connor, Saltzman, Thomsen, & Wadsworth,. 2001) that result in minimizing both their exposure to violence and their willingness to open up to parents about symptoms they may experience.

When it comes to youth report of concurrent symptoms, which was represented

by youth report of posttraumatic stress symptoms, symptoms were highest when both parent and youth reported high violence exposure and lowest when both parent and youth reported low exposure. The discrepancy between youth and parent report of YWV was significant and positively related to youth report of trauma symptoms. In other words, when the discrepancy between youth and parent report was greater, youth reported more posttraumatic stress symptoms. Specifically, the pattern that yielded the greatest reported distress by youth occurred when youth reported higher exposure relative to parents. These results again mirror findings from Oransky and colleagues (2013) whereby discrepancy in parent-youth reports of exposure to PTEs was significantly related to increased symptoms of PTSD reported by youth. There are many possible explanations for this finding, including lack of parental attunement to youth that has been found to predict poorer youth outcomes (Smetana, Metzger, Gettman, & Campione-Barr, 2006). Others have suggested that parental underestimation of YWV may be related to youth nondisclosure or inadequate parental supervision (Goodman, De Los Reyes, & Bradshaw, 2010). Through each of these mechanisms, if parents are uninformed of youth exposure to violence, they are unable to provide emotional support or help the child access services, which would increase risk of developing posttraumatic stress symptoms. Further research using moderation and mediation models are needed to parcel out the connection between caregiver-youth discrepancy and youth-reported trauma symptoms.

Longitudinal analyses yielded results that were less nuanced. The hypothesis for research question three that greater discrepancy would predict poorer longitudinal adjustment was not supported. For parent report symptoms, there was a positive and significant relationship between joint reports of YWV and parent report. When parents

and youth reported high violence exposure, parents reported higher internalizing symptoms and total problems. Similarly, symptoms were lowest when both parent and youth reported low YWV. There was not a significant relationship between joint reports of YWV and externalizing symptoms longitudinally. With respect to discrepancy, there was not a statistically significant relationship between parent-youth discrepancy of YWV at age 8 and parent-reported youth outcomes at age 12. Prior research that utilized difference score methods has yielded evidence of poor longitudinal outcomes related to discrepant parent and youth report of youth symptomatology has (Ferdinand et al., 2004). To the contrary, the investigation by Goodman (2013) that used latent class analysis to form discrepancy groups found no significant change in parent-reported symptoms over 2.5 years for any agreement class, which is consistent with the current investigation.

For youth report of longitudinal adjustment, there was not a significant relationship between parent and youth report of YWV and youth-reported trauma symptoms or engagement in delinquency. Results are inconsistent with previous research by Goodman (2013) that suggested worsening youth outcomes longitudinally when parents reported higher youth victimization than youth. Two important differences between the two studies is the time between collection points and the scope of potentially traumatic incidents surveyed. The Goodman (2013) investigation looked at youth outcomes over 2.5 years from discrepancy reports for youth exposure to PTEs, whereas the current investigation explored adjustment over a 4-year period. Additionally, the Goodman (2013) investigation looked at discrepancy for incidents that included both YWV and youth experiences of victimization, whereas the present study was narrower in scope. It may be that impact from discrepant reports dissipates over time. It may also be

that victimization experiences have a unique relationship between discrepancy and youth outcomes. For example, victimization experiences may be overrepresented by youth experiencing intrafamilial trauma, whereas YWV may primarily include exposure to community violence. Youth who have exposure to multiple traumas and experience family adversity are at a higher risk for developing posttraumatic stress symptoms (APA, 2008). It may be that if discrepancy in youth and parent report of exposure to a variety of potentially traumatic incidents was surveyed in the present study, perhaps there would have been a stronger relationship between discrepant reports and longitudinal outcomes.

Contributions to the Literature

This study contributes to the YWV discrepancy literature in several key ways. This is the first study to utilize multivariate regression and polynomial regression with response surface mapping to investigate predictors of discrepancy and outcomes associated with discrepancy. Past research has at times ignored the direction of discrepancy and heterogeneity of patterns of discrepancy in the population (Goodman et al., 2013). The variations in patterns of discrepancy based on parent report of violence, youth report of violence, and youth adjustment is multifaceted and changes with raters of adjustment. Past research has demonstrated the limitation of difference score methods (Laird & De Los Reyes, 2013) and polynomial regression has been found to provide a more complex and accurate picture than difference scores. The current study demonstrates a novel procedure for investigation the impact of YWV on concurrent and distal outcomes. Using updated methodologies provides a direct response to a call from researchers to explore discrepancies using self and parent report jointly and separately (Goodman et al., 2013).

Another contribution of the current study is the use of multisource data with a sample of minorities. Though the Lewis and colleagues (2010, 2012, 2013) investigations utilized the same sample, this investigation expands this work by including a previously unexamined predictor of YWW and by looking at longitudinal adjustment rather than a cross-sectional design only. Zimmerman and Farrell (2013) suggested the bulk of previous research that found discrepancies in YWV is probably best explained by parental underestimation, which may be related to youth nondisclosure, inadequate parent supervision (Goodman et al., 2010), and overall parental unawareness; however, the overwhelming majority of this research was conducted with older, school-aged children or adolescents. The present study significantly adds to the literature by investigating discrepant reports at age 8 and related adjustment. There is now evidence of similar patterns of discrepancy with younger children to prior research using concordance groups to investigate covariates and outcomes associated with YWV.

Limitations and Areas for Future Study

Though precautions were taken to maximize the validity of results found in the study, which largely map on to previous investigations, the study was not without limitations. The ability to generalize the results of the study to a larger population is a potential limitation of the study. Although the sample was ethnically diverse, it was overrepresented by minorities, with more than half of the sample identifying as African American, and thus, the study was unable to examine race/ethnicity factors that may have been related to parent victimization history, discrepancy reports, and youth adjustment. It is recommended that future studies examine race/ethnicity as a moderating variable using multivariate regression procedures and polynomial regression.

Also related to generalizability, the present sample was recruited to include those with high risk for maltreatment. It may have been that the caregivers involved in the study bore some responsibility for the maltreatment history, and thus, may not be generalizable to other populations. The current study did not investigate whether witnessed violence occurred within the family or not, and this may represent two distinct samples of youth who witness violence. Indeed, there is some evidence that context for witnessed violence matters for reporting, as youth may be more likely to report exposure at school and parents may be more likely to endorse exposure that took place in the home (Thomson, Roberts, Curran, Ryan, & Wright, 2002). Future studies should include a broader investigation of youth exposure to potentially traumatic events in line with the Goodman (2013) and Oransky and colleagues (2013) investigations to determine if there is a difference in predictors and associated adjustment of discrepant reports for intrafamilial versus community violence. Along these lines, the measure of YWV included only five items specific to violence and was not perfectly parallel for youth and parents. Additionally, the internal consistency estimates of the YWV measures were quite low, calling into question the ability of the measure to reliably detect youth experiences of witnessed violence. The minor differences may have inflated apparent discrepancies in youth and parent reports. Although it should be noted that the measure involved totaling the number of times a youth was exposed to various types of violence, not measuring an abstract psychological construct. In other words, we would not necessarily expect that an individual exposed to one violent incident is more likely to be exposed to another type of violence (e.g., being hit or kicked would not necessarily increase the likelihood of witnessing someone else being shot). Still, the development of a more comprehensive

measure for assessing youth exposure to a variety of potentially traumatic events that can be administered to youth and parents is warranted, given the robust evidence that obtaining ratings from parents and youth is likely to yield variable results. Similarly, the delinquency measure was limited, with a low internal consistency estimate and possibly too few items. It may not have been sensitive enough to detect distal outcomes.

An important limitation of the current investigation includes the inability to identify a causal relationship between youth and parent discrepancies of YWV and youth adjustment. For the concurrent adjustment measures, discrepancy was measured at the same time as outcomes, and although there were longitudinal measures included, relationships between discrepancies and adjustment did not hold up after four years. Additionally, the current study did not include a measurement model that relates predictors of discrepancy to outcomes of discrepancy. Future research should investigate whether instances of greater discrepancy predicted by parent victimization history are related to particular patterns of youth outcomes. Though as previously mentioned, while parent victimization history emerged as a significant predictor, the magnitude of the effect was quite small. Thus, it would be important for future measurement models to consider other predictors. For example, the present study did not include a measure of whether youth disclosed violence exposure to parents, thus it is unclear if parent trauma history led to over-reporting of YWV or whether youth were motivated to minimize their violence exposure in the study. Because the relationship between discrepancy and outcomes was source-dependent (when parents reported high exposure, they also reported greater symptoms; when youth reported high exposure, they reported greater symptoms), it is recommended that future studies include an objective measure of concurrent and

distal functioning such as teacher ratings, substance use, involvement in the juvenile justice system, peer ratings, and so forth.

Despite these limitations, the present study is an important contribution to the growing literature on discrepancies in youth exposure to trauma. Again, findings underscore that discrepancy matters and highlights the need to gather multisource data in research and clinical settings. Given the growing body of research that has found discrepant reports in youth trauma exposure, researchers can no longer justify ignoring informants or collapsing information collected from multiple informants. Instead, investigators must reconcile conflicting information from multiple informants in order to present a more accurate picture of the complex relationship between discrepancy classes and outcomes. Researchers should consider using statistical analysis that can incorporate multiple informants such as hierarchical linear modeling as suggested by Kuo and colleagues (2000). Aside from analyzing data from multiple informants, it is recommended that researchers also strive to embed findings into a larger theoretical framework such as the Discrepancies in Victimization Implicate Developmental Effects (DiVIDE) model proposed by Goodman and colleagues (2010). The DiVIDE model includes factors that may precipitate discrepancies and factors that may arise once discrepancies are found.

Clinical Implications

With respect to clinical implications, the extant literature suggests that informant discrepancies do not reflect mere measurement error. It is notable that even within a construct that can be objectively verified, such as youth exposure to violence, there are predictable patterns of discrepancy in parent and youth reports of witnessed violence.

These differences in reporting are predicted in part by parent trauma history and are associated with deleterious effects for youth –particularly when parents underestimate youth exposure. Taken together, these results highlight important areas for clinicians to attend. The finding that parent trauma history has a small but significant relationship with parent ratings of youth experiences suggests that clinicians may want to consider assessing caregiver victimization history during clinical interviews. The mechanism by which parent victimization impacts their awareness or rating of youth exposure is not yet clear, though is an area ripe for clinicians to investigate. Clinicians would do well to assess parent history and make appropriate referrals for services for parents as needed.

Consistent with previous research, the study highlights that caregivers and youth are likely to provide different ratings of youth adjustment following violence exposure, and this is important for clinicians to keep in mind during psychological assessment of a youth. It is recommended that a comprehensive assessment of youth exposure to violence and functioning is completed and includes indicators from sources outside of the parent-child relationship such as from teachers or peers. It is likely that both parent and youth perspectives hold important but different truths that may impact treatment. For example, some research suggests a relationship between relationship quality and discrepant reports of youth violence exposure (i.e., specific to exposure to intimate partner violence, Hungerford et al., 2010). Thus, there is the potential for the discrepancy in reports to reflect broader concerns, such as less optimal monitoring, communication, involvement, etc., all of which are important dynamics for a clinician to attend. The study adds support for treatment models that emphasize psychoeducation about common reactions to trauma and work on strengthening the parent-child relationship. For example, an intervention

such as Trauma-Focused Cognitive-Behavioral Therapy (TF-CBT; Cohen et al., 2006) may be well suited to address possible attunement issues that are indicated by discrepancies in parent and youth reports.

The findings of the current investigation underscore the importance of gathering separate reports of youth exposure to PTEs from multiple informants. Given the negative effects associated with violence and trauma exposure, there is a need to better understand factors that facilitate youth access to treatment and resources that can ameliorate effects. Particularly in light of previous research suggesting youth who underreport witnessed violence may be at risk for future maladjustment (Goodman, 2013), it is important to increase parent recognition of their child's exposure. In addition to treatment access, parent awareness is likely to be an important component for prevention of future violence exposure. Further, if a parent is unaware of their youth's exposure to violence, this prevents parents from promoting appropriate coping strategies (Howard et al., 1999), and may further increase maladjustment risk in the future. The study supports treatment programs that emphasize increasing parental awareness of youth exposure to trauma, such as the Cognitive Behavioral Intervention for Trauma in Schools (CBITS; Stein et al., 2003b) program. CBITS encourages intrafamilial communication related to violence exposure in order to reduce poor outcomes and build resiliency. Further research related to exploring best practices for assessing and intervening around parent-youth discrepancies is warranted to promote optimal service use, policies, treatment programs, and ultimately youth outcomes.

APPENDIX A

ADOLESCENT DELINQUENCY SURVEY

Adolescent Delinquency Survey

In the past year…

1. Did you ever take part in any gang activities? No Yes
2. Did you belong to a group that other people consider a gang? No Yes
3. Were you ever in a fight where a group of people fought another group? No Yes
4. Did you steal or shoplift? No Yes
5. Were you ever in a physical fight? No Yes
6. How many times were you in a physical fight?

   1=1 Time, 2 = 2-5 Times, 3 = 6-12 Times, 4 = >12 Times

Have you ever…..

1. Been arrested? No Yes
2. Had to stay in jail, training school, juvenile center, or detention center? No Yes
3. Run away from home overnight? No Yes
4. Felt that you needed a weapon for protection? No Yes
5. Carried any kind of weapon (such as a gun, razor, or knife)? No Yes
6. When was the last time you carried a weapon?

   1 = More than a year ago, 2 = In the PAST YEAR, 3 = In the PAST MONTH, 4 = In the PAST WEEK

Have you ever threatened someone with a weapon? No Yes

APPENDIX B

CAREGIVER DEMOGRAPHICS

Caregiver Demographics

Age 4 Interview

Now, for statistical purposes, I would just like to ask a few questions about you. Starting with your education and work experience . . .

1. What is the highest grade in school or year of college that you have completed?

   (CIRCLE HIGHEST YEAR COMPLETED)

   NONE 0

   ELEMENTARY-HIGH SCHOOL 1 2 3 4 5 6 7 8 9 10 11 12

   COLLEGE 13 14 15 16+

   GRADUATE/PROFESSIONAL 17 18 19 20+ -- NO RESPONSE

   INTERVIEWER: (IF **0-12,** GO TO Q. **2**) (IF **13-20+**, GO TO Q. **3**)

2. Did you get a high school diploma or pass a high school equivalency test?

   0 NO

   1 DIPLOMA

   2 EQUIVALENCY TEST, GED

3. Since high school have you received any other educational or training degrees or certificates? If so, what? (DO NOT READ LIST. RECORD **HIGHEST** LEVEL.)

   0 NONE (OR PART COLLEGE)

   1 VOCATIONAL CERTIFICATE

   2 ASSOCIATE (A.A., JR. COLLEGE)

   3 BACHELOR'S (B.A., A.B., or B.S.)

   4 MASTER'S (M.A., M.S., M.S.W., etc.)

   5 DOCTORAL (Ph.D., M.D., J.D., D.D.S, etc.

(HAND CARD)

Are you currently *employed full-time, part-time, unemployed, retired and not working, a student, a homemaker,* or are you *disabled or too ill to work?*

Which of these best describes your employment status?

4. (CIRCLE ONLY ONE)

1 EMPLOYED FULL-TIME

2 EMPLOYED PART-TIME

(IF EMPLOYED, GO TO Q. 5)

3 UNEMPLOYED, LOOKING FOR WORK

4 RETIRED AND NOT WORKING

5 STUDENT

6 HOMEMAKER

7 DISABLED OR TOO ILL TO WORK

8 OTHER _____ (specify)

(IF NOT EMPLOYED, GO TO NEXT PAGE)

5. Do you have more than one job?

0 NO

1 YES

6. What kind of work do you do on your (main) job? OR What are your main duties on your job? (GET TYPE OF WORK & POSITION)

_____

What kind of company or place do you work for?

_____ (DO NOT KEY)

__ __ (EMPLOYMENT CODE)

Do you have a husband or male partner who lives with you and your family?

(IF YES, ASK THE FOLLOWING QUESTIONS.

IF NO, SKIP TO THE NEXT PAGE.)

7. Is he currently *employed full-time, part-time, unemployed, retired and not working, a student, a homemaker,* or is he *disabled or too ill to work?* Which of these best describes his employment status?

(CIRCLE ONLY ONE)

1 EMPLOYED FULL-TIME

2 EMPLOYED PART-TIME

(IF EMPLOYED, GO TO Q. 8)

3 UNEMPLOYED

4 RETIRED AND NOT WORKING

5 STUDENT

6 HOMEMAKER

7 DISABLED OR TOO ILL TO WORK

8 OTHER _____ (specify)

(IF NOT EMPLOYED, GO TO NEXT PAGE)

8. Does he have more than one job?

0 NO

1 YES

9. What kind of work does he do on his (main) job? OR What are his main duties on his job? (GET TYPE OF WORK & POSITION)

_____ (DO NOT KEY)

What kind of company or place does he work for?

_____ (DO NOT KEY)

__ __ (EMPLOYMENT CODE)

(HAND CARD)

10. Here I want you to think about your **family's total income** from all sources and **after all taxes and deductions** are taken out. Could you just estimate how much it is per year or per month or per week?

Which of the following best describes your family income *after deductions?* If you don't know exactly your best guess is okay.

HELP THE RESPONDENT FOCUS ON THE APPROPRIATE COLUMN. CIRCLE THE NUMBER IN THE LEFT-HAND COLUMN THAT CORRESPONDS TO SALARY LEVEL.

	PER YEAR	**PER MONTH**	**PER WEEK**
1	Less than $5,000	Less than $417	Less than $96
2	$5,000 - $10,000	$418 - $833	$97 - $192
3	$10,000-$15,000	$834- $1250	$193- $288
4	$15,000-$20,000	$1251 -$1666	$289 - $384
5	$20,000-$25,000	$1667 - $2083	$385 - $480
6	$25,000-$30,000	$2084 - $2500	$481 - $576
7	$30,000-$35,000	$2501 - $2916	$577 - $673
8	$35,000-$40,000	$2917 - $3333	$674 - $769
9	$40,000-$45,000	$3334 - $3750	$770 - $865

10	$45,000-$50,000	$3751 - $4166	$866 - $961
11	More than $50,000	More than $4167	More than $962

-- DON'T KNOW; NO RESPONSE

11. Including yourself, children, and people over 18, how many people are dependent on this income?

__ __ = TOTAL # OF PEOPLE (2 DIGITS)

12. As I read these, tell me which ones are sources of income for your household? (CIRCLE NO, IF RESONDENT SAYS "DON'T KNOW")

a. Work done by you No Yes

b. Work done by other adults in home No Yes

c. Work done by other adults not in home No Yes

d. Work done by children (under 18) No Yes

e. Child support for any child No Yes

f. AFDC No Yes

g. Disability Check No Yes

h. Unemployment No Yes

i. Workman's Compensation No Yes

j. Social Security Retirement No Yes

k. Other _____ No Yes

(specify)

13. Besides the income we just talked about, does anyone in your household receive....?

a. Medicaid No Yes

b. WIC No Yes

c. Food Stamps No Yes

14. Do you, or another member of your household, receive any housing assistance, either through public housing or another housing program?

NO 0

YES 1

Finally, I have a few questions about your background.

15. Could you give me (again) your date of birth? _____ /_____ /_____

(MO) (DAY) (YR)

16. Your social security number? __ __ __/ __ __/ __ __ __ __

17. What is the language you speak most often at home?

1 ENGLISH

2 SPANISH

3 OTHER _____

(specify)

18. Looking at this card, please tell me your racial or ethnic background.

(HAND CARD)

1 WHITE 5 ASIAN

2 BLACK 6 MIXED RACE

3 HISPANIC 7 OTHER_____

4 NATIVE AMERICAN (specify)

19. What is your current legal marital status?

1 MARRIED

2 SINGLE; NEVER MARRIED

3 SEPARATED

4 DIVORCED

5 WIDOWED

20. Do you consider yourself part of a religious or spiritual group? IF SO, what type?

1 CATHOLIC

2 JEWISH

3 ISLAMIC (MOSLEM)

4 PROTESTANT: DENOMINATION?_____

5 CHRISTIAN--NON-DENOMINATIONAL

6 OTHER (specify)_____

6 NO RELIGION

21. In the last year, how often did you attend religious or spiritual services?

0 NEVER

1 ONCE OR TWICE A YEAR

2 SEVERAL TIMES A YEAR

3 SEVERAL TIMES A MONTH

4 ONCE A WEEK

5 MORE THAN ONCE A WEEK

22. How important are your religion or spiritual beliefs in the way you raise your children)?

1 NOT IMPORTANT

2 SOMEWHAT IMPORTANT

3 VERY IMPORTANT

APPENDIX C

CAREGIVER HISTORY OF VICTIMIZATION

Caregiver's History of Victimization

Through other studies we are just beginning to discover how many people, women especially, were abused and mistreated at some time during their childhood or teen years. Do you feel that you were ever abused or mistreated?

(IF YES) Can you tell me a little about it? You do not need to tell me anybody's name. Determine **AGE** at time of abuse, **TYPE** of abuse, perp's **RELATIONSHIP** to respondent, and **AGE DIFFERENCE** when appropriate. Fill in details in the appropriate section on one of the next 4 pages. Continue to ask all specific questions in categories not already coded. In teen years, **FORCED** sexual contact by persons **3 OR MORE YEARS OLDER** should be coded.

Use space below to make notes to refer back to in order to correctly code questions on pages 12-15.

_____

_____

_____

_____

_____

_____

_____

_____

_____

If you don't mind, now I'd like to ask you some more specific questions about experiences you may or may not have had when you were growing up.

WHEN YOU WERE A CHILD OR A TEENAGER . . .

1. Were you ever physically hurt by a parent or someone else. . . like hit, slapped, beaten, shaken, burned, or anything like that? (DON'T COUNT SPANKING BY HAND)

-- NR

0 NO -->GO TO NEXT QUESTION

1 YES-->**Who?**

FOR EACH 'YES', ASK: **How upsetting was it?** (HAND CARD)

A1. Parent-figure No Yes **A2.** Very, Somewhat, A little, Not at all

B1. Other family No Yes **B2.** Very, Somewhat, A little, Not at all

C1. Non-family No Yes **C2.** Very, Somewhat, A little, Not at all

2. Were you ever punished or disciplined by someone in such a way that you were bruised or physically injured?

-- NR

0 NO -->GO TO NEXT QUESTION

1 YES-->**Who?**

FOR EACH 'YES', ASK: **How upsetting was it?** (HAND CARD)

A1. Parent-figure No Yes **A2.** Very, Somewhat, A little, Not at all

B1. Other family No Yes **B2.** Very, Somewhat, A little, Not at all

C1. Non-family No Yes **C2.** Very, Somewhat, A little, Not at all

Interviewer: If the mother reports any history of abuse or victimization, on any of these pages, ask whether she has received help or counseling in dealing with her feelings about the experience. If the mother has not had any such help or seems upset in discussing the experience, explore with her the possible options for receiving that help now.

BEFORE AGE 13 . . .

3. Did anyone older than you ever try or succeed in touching your breasts or genitals?

-- NR

0 NO -->GO TO NEXT QUESTION

1 YES-->**Who?**

FOR EACH 'YES', ASK: **How upsetting was it?** (HAND CARD)

A1. Parent-figure No Yes **A2.** Very, Somewhat, A little, Not at all

B1. Other family No Yes **B2.** Very, Somewhat, A little, Not at all

C1. Non-family No Yes **C2.** Very, Somewhat, A little, Not at all

4. Did anyone older than you ever try or succeed in getting you to touch their genitals?

-- NR

0 NO -->GO TO NEXT QUESTION

1 YES-->**Who?**

FOR EACH 'YES', ASK: **How upsetting was it?** (HAND CARD)

A1. Parent-figure No Yes **A2.** Very, Somewhat, A little, Not at all

B1. Other family No Yes **B2.** Very, Somewhat, A little, Not at all

C1. Non-family No Yes **C2.** Very, Somewhat, A little, Not at all

5. Did anyone ever try or succeed in having any kind of sexual intercourse with you?

-- NR

0 NO -->GO TO NEXT QUESTION

1 YES-->**Who?**

FOR EACH 'YES', ASK: **How upsetting was it?** (HAND CARD)

A1. Parent-figure No Yes **A2.** Very, Somewhat, A little, Not at all

B1. Other family No Yes **B2.** Very, Somewhat, A little, Not at all

C1. Non-family No Yes **C2.** Very, Somewhat, A little, Not at all

WHEN YOU WERE A TEEN . . .

6. Did anyone ever touch your breasts or genitals, against your wishes?

-- NR

0 NO -->GO TO NEXT QUESTION

1 YES-->**Who?**

FOR EACH 'YES', ASK: **How upsetting was it?** (HAND CARD)

A1. Parent-figure No Yes **A2.** Very, Somewhat, A little, Not at all

B1. Other family No Yes **B2.** Very, Somewhat, A little, Not at all

C1. Non-family No Yes **C2.** Very, Somewhat, A little, Not at all

7. Did anyone ever force you to touch their genitals, against your wishes?

-- NR

0 NO -->GO TO NEXT QUESTION

1 YES-->**Who?**

FOR EACH 'YES', ASK: **How upsetting was it?** (HAND CARD)

A1. Parent-figure No Yes **A2.** Very, Somewhat, A little, Not at all

B1. Other family No Yes **B2.** Very, Somewhat, A little, Not at all

C1. Non-family No Yes **C2.** Very, Somewhat, A little, Not at all

8. Did anyone ever force you to have any kind of sexual intercourse against your wishes?

-- NR

0 NO -->GO TO NEXT QUESTION

1 YES-->**Who?**

FOR EACH 'YES', ASK: **How upsetting was it?** (HAND CARD)

A1. Parent-figure No Yes **A2.** Very, Somewhat, A little, Not at all

B1. Other family No Yes **B2.** Very, Somewhat, A little, Not at all

C1. Non-family No Yes **C2.** Very, Somewhat, A little, Not at all

WHAT ABOUT SINCE YOU'VE BEEN AN ADULT . . .

9. Have you ever been hit, slapped, beaten, or pushed around by someone?

-- NR

0 NO -->GO TO NEXT QUESTION

1 YES-->**Who?**

FOR EACH 'YES', ASK: **How upsetting was it?** (HAND CARD)

NO YES **VERY SOMEWHAT A LITTLE NOT AT ALL**

A1. Husband/partner 0 1 **A2.** 4 3 2 1

B1. Other family 0 1 **A2.** 4 3 2 1

C1. Acquaintance 0 1 **A2.** 4 3 2 1

D1. Stranger 0 1 **A2.** 4 3 2 1

10. Have you been physically hurt or physically threatened by someone in any other way? If so, can you tell me about it?

-- NR

0 NO -->GO TO NEXT QUESTION

1 YES-->**Who?**

FOR EACH 'YES', ASK: **How upsetting was it?** (HAND CARD)

NO YES **VERY SOMEWHAT A LITTLE NOT AT ALL**

A1. Husband/partner 0 1 **A2.** 4 3 2 1

B1. Other family 0 1 **A2.** 4 3 2 1

C1. Acquaintance 0 1 **A2.** 4 3 2 1

D1. Stranger 0 1 **A2.** 4 3 2 1

11. Has anyone ever sexually assaulted or raped you?

-- NR

0 NO -->GO TO NEXT QUESTION

1 YES-->**Who?**

FOR EACH 'YES', ASK: **How upsetting was it?** (HAND CARD)

NO YES **VERY SOMEWHAT A LITTLE NOT AT ALL**

A1. Husband/partner 0 1 **A2.** 4 3 2 1

B1. Other family 0 1 **A2.** 4 3 2 1

C1. Acquaintance 0 1 **A2.** 4 3 2 1

D1. Stranger 0 1 **A2.** 4 3 2 1

APPENDIX D

CHILD BEHAVIOR CHECKLIST

Child Behavior Checklist

Description of child or youth

1. Acts too young for his/ her age. 0 = Not true (as far as you know)
   1 = Somewhat or sometimes true
   2 = Very true or often true
2. Allergy. 0 = Not true (as far as you know)
   1 = Somewhat or sometimes true
   2 = Very true or often true
3. Argues a lot. 0 = Not true (as far as you know)
   1 = Somewhat or sometimes true
   2 = Very true or often true
4. Asthma. 0 = Not true (as far as you know)
   1 = Somewhat or sometimes true
   2 = Very true or often true
5. Behaves like opposite sex 0 = Not true (as far as you know)
   1 = Somewhat or sometimes true
   2 = Very true or often true
6. Bowel movements outside toilet. 0 = Not true (as far as you know)
   1 = Somewhat or sometimes true
   2 = Very true or often true
7. Can't get his/ her mind off certain thoughts. 0 = Not true (as far as you know)
   1 = Somewhat or sometimes true
   2 = Very true or often true

8. Can't sit still, restless, or hyperactive. 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

9. Clings to adults or too dependent. 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

10. Complains of loneliness. 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

11. Confused or seems to be in a fog. 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

12. Cries a lot. 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

13. Cruel to animals. 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

14. Cruelty, bullying, or meanness to others. 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

15. Daydreams or gets lost in his/ her thoughts. 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

16. Deliberately harms self or attempts suicide. 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

17. Demands a lot of attention. 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

18. Destroys his/ her own things. 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

19. Destroys things belonging to his/ her family or others 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

20. Disobedient at home. 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

21. Disobedient at school. 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

22. Doesn't eat well. 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

23. Doesn't get along with other kids 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

24. Not seem to feel guilty after misbehaving 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

25. Easily jealous 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

26. Eats-drinks not food – don't include sweets. 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

27. Fears certain animal, situations, or places other than school

0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

28. Fears going to school 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

29.Fears he/ she might think or do something bad. 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

30. Feels he or she has to be perfect. 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

31. Feels or complains that no one loves him/ her. 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

32 .Feels others out to get him/ her. 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

33. Feels worthless or inferior. 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

34. Gets hurt a lot, accident-prone. 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

35. Gets in many fights. 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

36. Gets teased a lot. 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

37. Hangs around with others who get in trouble. 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

38. Hears sounds or voices that aren't there. 0 = Not true (as far as you know)

	1 = Somewhat or sometimes true
	2 = Very true or often true
39. Impulsive or acts without thinking.	0 = Not true (as far as you know)
	1 = Somewhat or sometimes true
	2 = Very true or often true
40. Would rather be alone than with.	0 = Not true (as far as you know)
	1 = Somewhat or sometimes true
	2 = Very true or often true
41. Lying or cheating.	0 = Not true (as far as you know)
	1 = Somewhat or sometimes true
	2 = Very true or often true
42. Bites fingernails.	0 = Not true (as far as you know)
	1 = Somewhat or sometimes true
	2 = Very true or often true
43. Nervous, high-strung, or tense.	0 = Not true (as far as you know)
	1 = Somewhat or sometimes true
	2 = Very true or often true
44. Nervous movements or twitching.	0 = Not true (as far as you know)
	1 = Somewhat or sometimes true
	2 = Very true or often true
45. Nightmares.	0 = Not true (as far as you know)
	1 = Somewhat or sometimes true
	2 = Very true or often true

46. Not liked by other kids.	0 = Not true (as far as you know) 1 = Somewhat or sometimes true 2 = Very true or often true
47. Constipated, doesn't move bowels.	0 = Not true (as far as you know) 1 = Somewhat or sometimes true 2 = Very true or often true
48. Too fearful or anxious.	0 = Not true (as far as you know) 1 = Somewhat or sometimes true 2 = Very true or often true
49. Feels dizzy.	0 = Not true (as far as you know) 1 = Somewhat or sometimes true 2 = Very true or often true
50. Feels too guilty.	0 = Not true (as far as you know) 1 = Somewhat or sometimes true 2 = Very true or often true
51. Overeating.	0 = Not true (as far as you know) 1 = Somewhat or sometimes true 2 = Very true or often true
52. Overtired.	0 = Not true (as far as you know) 1 = Somewhat or sometimes true 2 = Very true or often true
53. Overweight.	0 = Not true (as far as you know) 1 = Somewhat or sometimes true

2 = Very true or often true

54. Physical problems without known medical cause -**Aches or pains. (not headaches)**

0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

55. Physical problems without known medical cause -**Headaches.**

0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

56. Physical problems without known medical cause -**Nausea, feels sick.**

0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

57. Physical problems without known medical cause -**Problems with eyes**

0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

58. Rashes or skin problems.

0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

59. Stomachaches or cramps.

0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

60. Vomiting, throwing up.	0 = Not true (as far as you know) 1 = Somewhat or sometimes true 2 = Very true or often true
61. Other problem.	0 = Not true (as far as you know) 1 = Somewhat or sometimes true 2 = Very true or often true
62. Physically attacks people.	0 = Not true (as far as you know) 1 = Somewhat or sometimes true 2 = Very true or often true
63. Picks nose, skin, or other parts of body	0 = Not true (as far as you know) 1 = Somewhat or sometimes true 2 = Very true or often true
64. Plays with sex parts in public.	0 = Not true (as far as you know) 1 = Somewhat or sometimes true 2 = Very true or often true
65. Plays with sex parts too much	0 = Not true (as far as you know) 1 = Somewhat or sometimes true 2 = Very true or often true
66. Poor school work.	0 = Not true (as far as you know) 1 = Somewhat or sometimes true 2 = Very true or often true
67. Poorly coordinated or clumsy.	0 = Not true (as far as you know) 1 = Somewhat or sometimes true

2 = Very true or often true

68. Prefers older kids. 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

69. Prefers younger kids. 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

70. Refuses to talk. 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

71. Repeats certain acts over and over; compulsions. 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

72. Runs away from home. 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

73. Screams a lot. 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

74. Secretive, keeps things to self. 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

75. Sees things that aren't there. 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

76. Self-conscious or easily embarrassed. 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

77. Sets fires. 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

78. Sexual problems. 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

79. Showing off or clowning. 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

80. Shy or timid. 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

81. Sleeps less than most kids. 0 = Not true (as far as you know)

1 = Somewhat or sometimes true

2 = Very true or often true

82. Sleeps more than most kids during day and/ or night.

0 = Not true (as far as you know)

1 = Somewhat or sometimes true

	2 = Very true or often true
83. Smears or plays with bowel movement.	0 = Not true (as far as you know)
	1 = Somewhat or sometimes true
	2 = Very true or often true
84. Stares blankly.	0 = Not true (as far as you know)
	1 = Somewhat or sometimes true
	2 = Very true or often true
85. Steals at home.	0 = Not true (as far as you know)
	1 = Somewhat or sometimes true
	2 = Very true or often true
86. Steals outside home.	0 = Not true (as far as you know)
	1 = Somewhat or sometimes true
	2 = Very true or often true
87. Stores up things he/ she doesn't need.	0 = Not true (as far as you know)
	1 = Somewhat or sometimes true
	2 = Very true or often true
88. Strange behavior.	0 = Not true (as far as you know)
	1 = Somewhat or sometimes true
	2 = Very true or often true
89. Strange ideas.	0 = Not true (as far as you know)
	1 = Somewhat or sometimes true
	2 = Very true or often true
90. Stubborn, sullen, irritable.	0 = Not true (as far as you know)

	1 = Somewhat or sometimes true
	2 = Very true or often true
91. Sudden changes in mood or feelings.	0 = Not true (as far as you know)
	1 = Somewhat or sometimes true
	2 = Very true or often true
92. Sulks a lot.	0 = Not true (as far as you know)
	1 = Somewhat or sometimes true
	2 = Very true or often true
93. Suspicious.	0 = Not true (as far as you know)
	1 = Somewhat or sometimes true
	2 = Very true or often true
94. Swearing or obscene language.	0 = Not true (as far as you know)
	1 = Somewhat or sometimes true
	2 = Very true or often true
95. Talks about killing self	0 = Not true (as far as you know)
	1 = Somewhat or sometimes true
	2 = Very true or often true
96. Talks or walks in sleep.	0 = Not true (as far as you know)
	1 = Somewhat or sometimes true
	2 = Very true or often true
97. Talks too much.	0 = Not true (as far as you know)
	1 = Somewhat or sometimes true
	2 = Very true or often true

98. Teases a lot.	0 = Not true (as far as you know) 1 = Somewhat or sometimes true 2 = Very true or often true
99. Temper tantrums or hot temper.	0 = Not true (as far as you know) 1 = Somewhat or sometimes true 2 = Very true or often true
100. Thinks about sex too much.	0 = Not true (as far as you know) 1 = Somewhat or sometimes true 2 = Very true or often true
101. Threatens people.	0 = Not true (as far as you know) 1 = Somewhat or sometimes true 2 = Very true or often true
102. Thumb-sucking.	0 = Not true (as far as you know) 1 = Somewhat or sometimes true 2 = Very true or often true
103. Too concerned with neatness or cleanliness.	0 = Not true (as far as you know) 1 = Somewhat or sometimes true 2 = Very true or often true
104. Trouble sleeping.	0 = Not true (as far as you know) 1 = Somewhat or sometimes true 2 = Very true or often true
105. Truancy skips school.	0 = Not true (as far as you know) 1 = Somewhat or sometimes true

	2 = Very true or often true
106. Underactive, slow moving, or lacks energy.	0 = Not true (as far as you know)
	1 = Somewhat or sometimes true
	2 = Very true or often true
107. Unhappy, sad, or depressed.	0 = Not true (as far as you know)
	1 = Somewhat or sometimes true
	2 = Very true or often true
108. Unusually loud.	0 = Not true (as far as you know)
	1 = Somewhat or sometimes true
	2 = Very true or often true
109. Alcohol or drugs for nonmedical purposes.	0 = Not true (as far as you know)
	1 = Somewhat or sometimes true
	2 = Very true or often true
110. Vandalism.	0 = Not true (as far as you know)
	1 = Somewhat or sometimes true
	2 = Very true or often true
111. Wets self during day.	0 = Not true (as far as you know)
	1 = Somewhat or sometimes true
	2 = Very true or often true
112. Wets the bed.	0 = Not true (as far as you know)
	1 = Somewhat or sometimes true
	2 = Very true or often true
113. Whining.	0 = Not true (as far as you know)

	1 = Somewhat or sometimes true
	2 = Very true or often true
114. Wishes to be of opposite sex.	0 = Not true (as far as you know)
	1 = Somewhat or sometimes true
	2 = Very true or often true
115. Withdrawn, doesn't get involved with others.	0 = Not true (as far as you know)
	1 = Somewhat or sometimes true
	2 = Very true or often true
116. Worries.	0 = Not true (as far as you know)
	1 = Somewhat or sometimes true
	2 = Very true or often true
117. Other problems. .	0 = Not true (as far as you know)
	1 = Somewhat or sometimes true
	2 = Very true or often true

APPENDIX E

CHILD DEMOGRAPHICS

Child Demographics

Age 4 Interview

I want to start by getting some information about (CHILD): about his/her background and how she/he's been feeling and acting over the last few months. First, I'm just going to record some basic information.

1. CHILD'S DATE OF BIRTH: _____ /_____ /_____

(MO) (DAY) (YR)

So right now s/he is . . . ____ years ____ months

2a. 2b.

3. CHILD'S SEX

1 MALE

2 FEMALE

4. Which one of these best describes (CHILD)'s race or ethnic group?

1 WHITE 5 ASIAN

2 BLACK 6 MIXED RACE

3 HISPANIC 7 OTHER_____

4 NATIVE AMERICAN (specify)

5. What is (child)'s first language, that is, the language s/he speaks most often at home?

1 English

2 Spanish

3 Other _____ (specify)

6. Does child have a second language?

0 NO------> (GO TO Q. 7)

1 YES------> 6a. What is (CHILD)'s second language?

1 ENGLISH

2 SPANISH

3 OTHER _____(specify)

7. What position was (CHILD) born into in his/her family?

(READ RESPONSES) ?

0 ONLY CHILD

1 FIRST (OLDEST)

2 MIDDLE

3 LAST (YOUNGEST)

-- DON'T KNOW

8. Who makes the decisions about what's best for (CHILD) most of the time? (like bedtime, when s/he goes to the doctor, what s/he eats for meals)

1 RESPONDENT (or RESPONDENT AND SPOUSE)

2 RESPONDENT'S SPOUSE

3 OTHER _____

(specify)

APPENDIX F

CHILD'S LIFE EVENTS SCALE (PARENT REPORT OF YOUTH-WITNESSED VIOLENCE)

Child's Life Events Scale

INTERVIEWER:

• Read statements and questions that are in bold. The questions should be child-based, i.e. if the event occurred to child while living in another household or place, it should still be scored.

• Ask the general question first and probe where necessary to be sure you have full information to accurately mark the answer to each question.

• You can ask the sub-questions informally, e.g., ". . . what about separated or divorced?" Key words such as "separated" or "divorced" are underlined for easy reference.

NON-response codes: D = Don't Know R = Refused or No Response O = Other (explain)

"These questions are about any changes or important events that might have occurred in 's life in the past year."

"Has your or _____ 's household gained or lost any members in the past year? For example, . . .

1. Did _____ get a new brother or sister in the past year? (1) ____ *[1=YES; 0=NO]*

[If YES] **1a. A new baby?**

[Describe situation and relationship to child, i.e., born to or adopted by parentfigure, baby or older child, foster child, etc.]

1b. New sibling's name?

2. Are there any (other) new babies in 's home? (2) ____ *[1=YES; 0=NO]*

[If YES] **2a. Who?** *[Get relationship and name.]*

3. Did anybody in _____'s household get married in the past year? (3) ____

[1=YES; 0=NO]

[If YES] **Who?**

3a. Child's parent/caregiver 0 No 1 Yes

3b. Other_____ 0 No 1 Yes

4. Did anybody separate? (4) ____ *[1=YES; 0=NO]*

[If YES] **Who?**

4a. Child's parent/caregiver 0 No 1 Yes

4b. Other_____ 0 No 1 Yes

5. Did anybody divorce? (5) **____** *[1=YES; 0=NO]*

[If YES] **Who?**

5a. Child's parent/caregiver 0 No 1 Yes

5b. Other_____ 0 No 1 Yes

6. Did anybody move out for some other reason in the past year? (6) ____ *[1=YES; 0=NO]*

[If YES] **Who?**

6a. Child's parent/caregiver 0 No 1 Yes

6b. Other_____ 0 No 1 Yes

7. Did anybody (else) move in? *[in addition to those mentioned above]* (7) ____

[1=YES; 0=NO] [If YES] **Who?**

7a. Parent or caregiver's boy/girlfriend 0 No 1 Yes

7b. Other _____ 0 No 1 Yes

8. Did _____ move with family to new place? (8) ____ *[1=YES; 0=NO]*

[If YES] **8a. How many times? __ __**

9. Did _____ move away from family for any reason? (9) ____ *[1=YES; 0=NO]*

[If YES] **Where?-->_____ Anywhere else?**

[Fill in total # of placements or relocations to each place.]

__ __9a1. Other parent

__ __9a2. Other relative *(Who?_____)*

__ __9a3. Foster care *(including placement in group home or shelter)*

__ __9a4. Other *(describe)* _____

10. Was _____ ever homeless (or did s/he live at a homeless shelter)? (10) ____

[1=YES; 0=NO] [If YES] **10a. For how long? __ __** *[Total number of weeks]*

11. Were you (or _____ 's family) ever evicted this past year? (11) ____ *[1=YES; 0=NO]*

12. Did anyone close to _____ suffer a serious accident or illness in the past year?

(12) ____

[1=YES; 0=NO]

[If YES] **Who?**

12a1. Mother /mother -figure 0 No 1 Yes

12a2. Father/father-figure? 0 No 1 Yes

12a3. Brother/sister? 0 No 1 Yes

12a4. Someone else? (Who? _____) 0 No 1 Yes

13. Did anyone who was close to _____ die during the past year? (13) ____ *[1=YES; 0=NO]*

[If YES] **Who?**

13a1. Mother /mother -figure 0 No 1 Yes

13a2. Father/father-figure? 0 No 1 Yes

13a3. Brother/sister? 0 No 1 Yes

13a4. Someone else? (Who? _____) 0 No 1 Yes

b. When did this happen? __ __/__ __ (mo/yr)

14. Did _____ have a serious illness in the past year? (14) **____** *[1=YES; 0=NO]*

[If YES] **a. Please describe**

b. Was s/he seen by a doctor for this (these) illness(es)? (14b) **____**

[1=YES; 0=NO]

[If YES] **c. Was s/he hospitalized overnight?** (14c) **____** *[1=YES; 0=NO]*

15. Did _____ suffer any kind of accident (in the past year)? (15) **____** *[1=YES; 0=NO]*

[If YES] **a. Please describe**

[Fill in below the NUMBER of times each type of accident occurred.]

___15a1. Poisoning

___15a2. Burn

___15a3. Choking, strangling, suffocating, drowning

___15a4. Knocked out due to head injury

___15a5. Other injury *[describe]* _____

b. Was s/he seen by a doctor for this (these) accident(s)? (15b) **____**

[If YES] **c. Was s/he hospitalized overnight?** (15c) ____ *[1=YES; 0=NO]*

16. Has your family (or _____'s family) been the victim of any property crimes this past year?

(like house broken into, vandalism, car stolen, other property stolen)? (16) **____**

[1=YES; 0=NO]

17. Was required to be in court for any reason in the past year? (17a) **____** *[1=YES; 0=NO]*

[If YES] **17e. Why?_____**

[For office use only: CODE 17 b. __ __ 17c. __ __ 17d. __ __]

18. Was anyone in _____'s family or household arrested in the past year?

(18a) ____

[1=YES; 0=NO]

[If YES] **18e. Who?_____**

[For office use only: CODE 18b. __ __ 18c. __ __ 18d. __ __]

19. Was anyone in _____'s family or household jailed or imprisoned?

(19a) **____** *[1=YES; 0=NO]*

[If YES] **19e. Who?_____**

[For office use only: CODE 19b. __ __ 19c. __ __ 19d. __ __]

"Now I am going to ask you a few questions about things your child may have witnessed in the last year in real life, not on TV and in the movies. By *witnessed,* we mean things _____ has seen or heard, *not* things that actually happened to him/her..."

20. In the last year, has heard any loud, long arguments? (20) **____** *[1=YES; 0=NO]*

[If YES] **20a. How many times has s/he heard this happen in the last year?**

1 One time

2 2-3 times

3 4 or more times

b. Did this (or any of these) involve family members? (by family members, I mean the people who usually live with _____.)

(20b) ____ *[1=YES; 0=NO]*

21. Has seen anyone physically threatened with a weapon? (21) ____ *[1=YES; 0=NO]*

[If YES] **21a. How many times has s/he seen this happen in the last year?**

1 One time

2 2-3 times

3 4 or more times

Did this (or any of these) involve family members? (21b)

[1=YES; 0=NO]

[If YES] **In what way?** *[Circle all that apply.]*

21b1. Family Member Victim? 0 No 1 Yes

21b2. Family Member Aggressor? 0 No 1 Yes

21b3. Other _____ *(specify)?* 0 No 1 Yes

22. Did s/he see anyone get shot or stabbed? [other than on TV or movies] ____

[1=YES; 0=NO]

[If YES] **22a. How many times did s/he see this happen in the last year?**

1 One time

2 2-3 times

3 4 or more times

Did this (or any of these) involve family members? (22b) ____

[1=YES; 0=NO]

[If YES] **In what way?** *[Circle all that apply.]*

22b1. Family Member Victim? 0 No 1 Yes

22b2. Family Member Aggressor? 0 No 1 Yes

22b3. Other _____ *(specify)?* 0 No 1 Yes

23. Has s/he seen someone killed or murdered? (23) ____ *[1=YES; 0=NO]*

[If YES] **23a. How many times has s/he seen this happen in the last year?**

1 One time

2 2-3 times

3 4 or more times

Did this (or any of these) involve family members? (23b) ____

[1=YES; 0=NO]

[If YES] **In what way?** *[Circle all that apply.]*

23b1. Family Member Victim? 0 No 1 Yes

23b2. Family Member Aggressor? 0 No 1 Yes

23b3. Other _____ *(specify)?* 0 No 1 Yes

24. Did s/he witness anyone being sexually abused, assaulted or raped? (24) ____

[1=YES; 0=NO]

[If YES] **24a. How many times has s/he seen this happen in the last year?**

1 One time

2 2-3 times

3 4 or more times

Did this (or any of these) involve family members? (24b)

[1=YES; 0=NO]

[If YES] **In what way?** *[Circle all that apply.]*

24b1. Family Member Victim? 0 No 1 Yes

24b2. Family Member Aggressor? 0 No 1 Yes

24b3. Other _____ *(specify)?* 0 No 1 Yes

25. Has s/he seen anyone getting hit, kicked or physically harmed in some other way?

(25) **____** *[1=YES; 0=NO]*

[If YES] **25a. How many times has s/he seen this happen in the last year?**

1 One time

2 2-3 times

3 4 or more times

Did this (or any of these) involve family members? (25b)

[1=YES; 0=NO]

[If YES] **In what way?** *[Circle all that apply.]*

25b1. Family Member Victim? 0 No 1 Yes

25b2. Family Member Aggressor? 0 No 1 Yes

25b3. Other _____ *(specify)?* 0 No 1 Yes

"To return to more everyday matters, I'd like to ask you a few questions about changes in school or job schedules."

26. Has been in any school during this past year? ____ *[1=YES; 0=NO]*

[If YES] **a. Is s/he currently enrolled in a school?** (26a) **____** *[1=YES; 0=NO]*

[If YES] **b. Did s/he begin a new school or change schools during past year?**

0 No

1 Began a new school at start of school year

2 Changed schools midyear---> **c. How many times? __ __**

27. Have you (or other parent to) been away from home more than in the previous year (like because of a new job or educational program)? (27) **____** *[1=YES; 0=NO]*

28. Did anyone in your household graduate from some type of school in the past year? (28a1) ____

[1=YES; 0=NO]

[If YES] **28 a5. Who? _____**

*[Office use only: CODE **28a2.** 1st person __ __ **28a3.** 2nd__ __ **28a4.** 3rd __ __]*

28b4. What kind of program or degree?

*[Office use only: CODE **28b1** 1st person __ __ **28b2.** 2nd__ __ **28b3.** 3rd__ __]*

29. How have household finances been in the past year? Have they . . .

0 Stayed about the same?

1 Gotten worse?

2 Gotten better?

30. Did anyone in your household achieve or accomplish something special during the past year?

[Other than what might have been mentioned in Q. 28.] (30a1) **____** *[1=YES; 0=NO]*

[If YES] **30a5. Who?**

*[Office use only: CODE **30a2.** 1st person __ __ **30a3.** 2nd__ __ **30a4.** 3rd __ __]*

30b5. What?

*[Office use only: CODE **30b1.** 1st person __ __ **30b2.** 2nd__ __ **30b3.** 3rd __ __]*

31. Is there anything else that has happened, in the past year, that you feel had a very strong effect on? (31a1) **____** *[1=YES; 0=NO]*

[If YES] **31a5. Describe**

*[Office use only: CODE **31a2.** __ __ **31a3.** __ __ **31a4.** __ __]*

APPENDIX G

THINGS I'VE SEEN AND HEARD (YOUTH REPORT OF WITNESSED VIOLENCE)

Things I've Seen and Heard – Age 8

"**We see bad things happen to people every day on the news, on TV, and in the movies, but I am going to ask you about things you may have seen or heard IN REAL LIFE. You show me how many times you have seen or heard each thing IN REAL LIFE by pointing to one of these answers.** *[Point to options on the answer card and explain each one.]* **For example, if I say, 'How many times have you seen a building on fire?' Which answer would you choose?"** *[Explain the meaning of the response options again if necessary. When it is clear that the child understands the task, proceed with the following.]* **"Now I will read some more questions. Please think carefully and tell me about those things that you have seen IN REAL LIFE, NOT IN THE MOVIES OR ON TV."**

	O 1 2 3 >3 Ref
1. How many times have you heard guns being shot?	0 1 2 3 4 R
2 How many times have you seen somebody arrested?	0 1 2 3 4 R
3. How often do you feel safe when you are at home?	0 1 2 3 4 R
4. How many times have you seen drug deals?	0 1 2 3 4 R
5. How many times have you seen somebody being beaten up?	0 1 2 3 4 R
6. How many times have you heard grownups in your home yell at each other?	0 1 2 3 4 R
7. How many times have you seen somebody get stabbed?	0 1 2 3 4 R
8. How many times have you seen somebody get shot?	0 1 2 3 4 R
9. How many times have you seen a gun in your home?	0 1 2 3 4 R
10. How often do you feel safe when you are at school?	0 1 2 3 4 R

11. How many times have you seen grownups in your home hit each other? 0 1 2 3 4 R

12. How often do you feel safe when you are outside in your neighborhood? 0 1 2 3 4 R

13. How many times have you seen a dead body around your neighborhood?

[Do not include wakes or funerals.] 0 1 2 3 4 R

14. How many times have you seen gangs in your neighborhood? 0 1 2 3 4 R

15. How many times have you seen somebody pull a gun on another person? 0 1 2 3 4 R

16. How many times have you seen someone in your home get shot or stabbed?

0 1 2 3 4 R

17. How many times has your house has been broken into? 0 1 2 3 4 R

18. How many times have you seen somebody pull a knife on another person? 0 1 2 3 4 R

19. How many times have you seen somebody steal something from another person's house or store? 0 1 2 3 4 R

20. How often are grownups nice to you? 0 1 2 3 4 R

Notes: *[Go back and check any responses that seem unusual, including any witnessing of severe violence. For example, say: "You said you have seen somebody get shot. Can you tell me a little more about that?"]*

OPTIONAL ITEMS

21. How many times have you been beaten up? 0 1 2 3 4 R

22. How many times have you seen drugs in your home? 0 1 2 3 4 R

23. How many times has somebody threatened to kill you? 0 1 2 3 4 R

24. How many times has somebody threatened to shoot you? 0 1 2 3 4 R

25. How many times has somebody threatened to stab you? 0 1 2 3 4 R

26. How many times have grown-ups in your home threatened to stab or shoot each other? 0 1 2 3 4 R

[Go back and probe any responses that seem unusual, including any witnessing of severe violence. For example, say :" You said you have seen somebody get shot. Can you tell me a little more about that?"]

APPENDIX H

TRAUMA SYMPTOM CHECKLIST

Trauma Symptom Checklist for Children

"Now, I'm going to ask you about some things that may happen to you.

Some of these things may NEVER happen to you and some may happen OFTEN.

After each of the things I read, you tell me how often each thing happens to YOU by picking one of these answers." *(Hand card and read each answer.)*

0 = Never

1 = Sometimes

2 = Lots of times

3 = Almost all of the time

R = REFUSED

1. Bad dreams or nightmares.	0 1 2 3 R
2. Feeling afraid something bad might happen.	0 1 2 3 R
3. Scary ideas or pictures just pop in your head.	0 1 2 3 R
4. Pretending you are someone else.	0 1 2 3 R
5. Arguing too much.	0 1 2 3 R
6. Feeling lonely.	0 1 2 3 R
7. Feeling sad or unhappy.	0 1 2 3 R
8. Remembering things that happened that you didn't like.	0 1 2 3 R
9. Going away in your mind, trying not to think.	0 1 2 3 R
10. Remembering scary things.	0 1 2 3 R
11. Wanting to yell and break things.	0 1 2 3 R
12. Crying.	0 1 2 3 R
13. Getting scared all of a sudden, and don't know why.	0 1 2 3 R

14. Getting mad and can't calm down.	0 1 2 3 R
15. Feeling dizzy.	0 1 2 3 R
16. Wanting to yell at people.	0 1 2 3 R
17. Wanting to hurt yourself.	0 1 2 3 R
18. Wanting to hurt other people.	0 1 2 3 R
19. Feeling scared of men.	0 1 2 3 R
20. Feeling scared of women.	0 1 2 3 R
21. Washing yourself because you feel dirty inside.	0 1 2 3 R
22. Feeling stupid or bad.	0 1 2 3 R
23. Feeling like you did something wrong.	0 1 2 3 R
24. Feeling like things aren't real.	0 1 2 3 R
25. Forgetting things or can't remember things.	0 1 2 3 R
26. Feeling like you're not in your body.	0 1 2 3 R
27. Feeling nervous or jumpy inside.	0 1 2 3 R
28. Feeling afraid.	0 1 2 3 R
29. Can't stop thinking about something bad that happened to you.	0 1 2 3 R
30. Getting into fights.	0 1 2 3 R
31. Feeling mean.	0 1 2 3 R
32. Pretending you're somewhere else.	0 1 2 3 R
33. Being afraid of the dark.	0 1 2 3 R
34. Worrying about things.	0 1 2 3 R
35. Feeling like nobody likes you.	0 1 2 3 R
36. Remembering things you don't want to remember.	0 1 2 3 R

37. Your mind going empty or blank.	0 1 2 3 R
38. Feeling like you hate people.	0 1 2 3 R
39. Trying not to have any feelings.	0 1 2 3 R
40. Feeling mad.	0 1 2 3 R
41. Feeling afraid that somebody will kill you.	0 1 2 3 R
42. Wishing bad things had never happened.	0 1 2 3 R
43. Wanting to kill yourself.	0 1 2 3 R
44. Daydreaming.	0 1 2 3 R

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